FORCEnet Integrated Architecture

Briefing for Verification Board on
OV-2,4, & 5 (Hierarchy) Products

9 June 2005

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9 June 2005

Purpose of Briefing

- Provide DoDAF descriptions of OV-2, OV-4 and OV-5 hierarchy architecture view products
- Provide operational context for the three FORCEnet Architecture efforts:
  - Battlespace Awareness/ISR (BA/ISR)
  - Communications & Networks/Infostructure (C&N/I)
  - Command and Control/Decision Support (C2/DS)
- Discuss process used to develop operational architecture view products
- Provide overview/way ahead for operational architecture view products
- Obtain Verification Board approval on OV-2, OV-4, and OV-5 hierarchy products for configuration management

Operational Node Description (OV-2)

- **Graphically depicts the operational nodes (or organizations) with needlines between those nodes that indicate a need to exchange information. The graphic includes internal operational nodes (internal to the architecture) as well as external nodes.**
- **Conceptual to specific operational context**

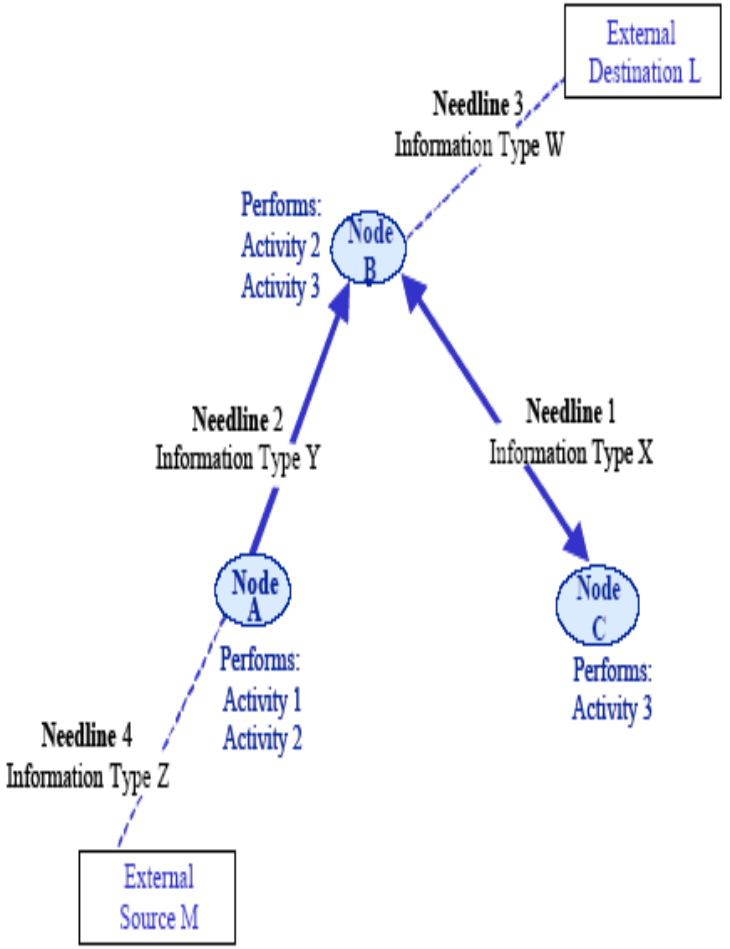


Figure 4-4. Operational Node Connectivity Description (OV-2) Template

Organizational Relationships (OV-4)

- **Illustrates the command structure or relationships (as opposed to relationships with respect to a business process flow) among human roles, organizations, or organization types that are the key players in an architecture.**

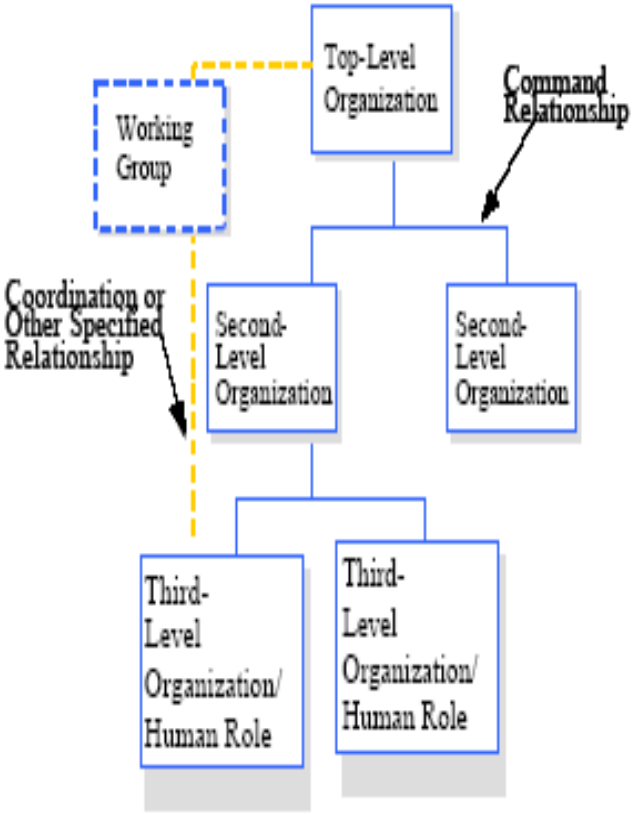


Figure 4-11. Organizational Relationships Chart (OV-4) – Template

Activity Hierarchy (OV-5)

Describes the operations that are normally conducted in the course of achieving a mission or a business goal. It describes capabilities, operational activities (or tasks), input and output (I/O) flows between activities, and I/O flows to/from activities that are outside the scope of the architecture

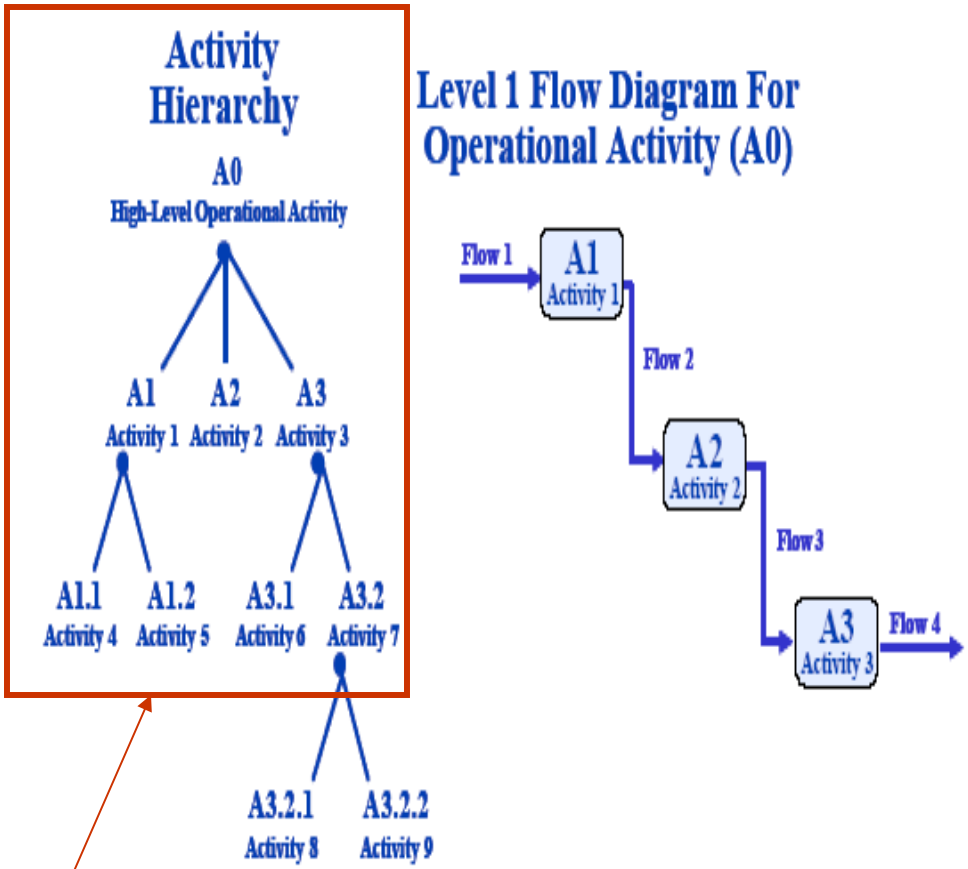
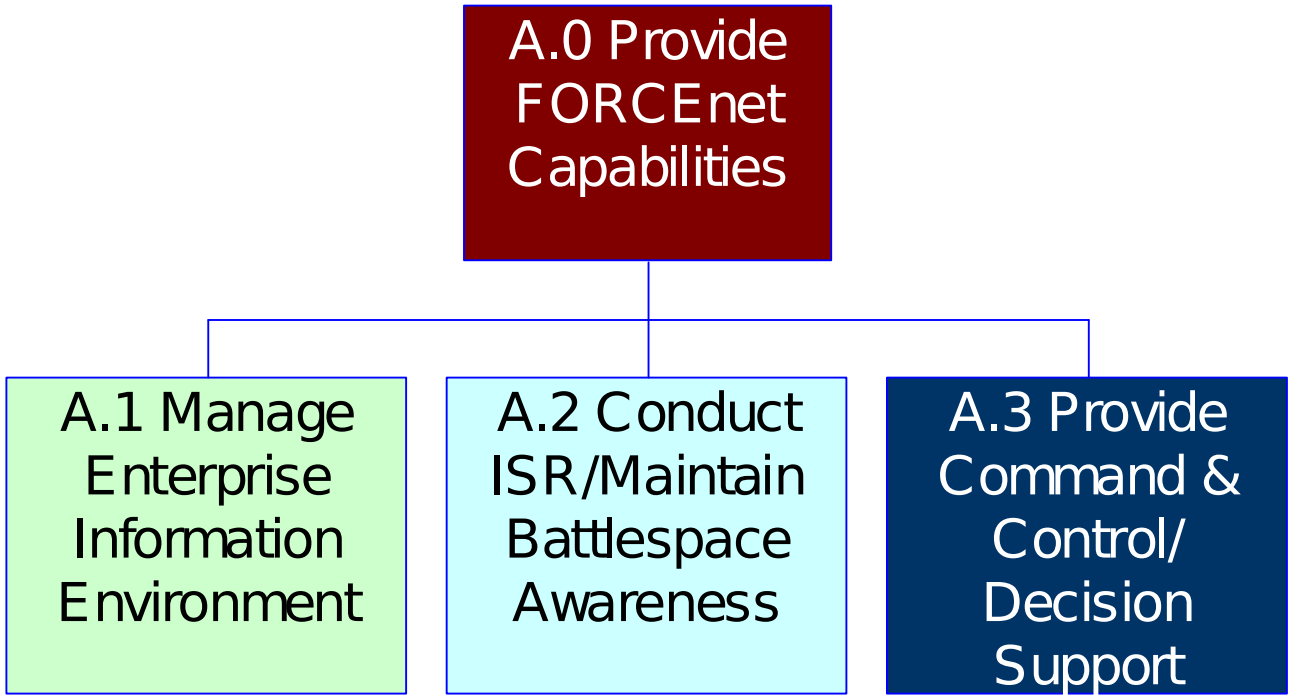


Figure 4-14. Operational Activity Hierarchy Chart and Operational Activity Diagram (OV-5) – Templates

Focus of this review

FORCEnet Architecture Activities


A.0 Provide FORCEnet Capabilities
A.1 Manage Enterprise Information Environment
A.2 Conduct ISR/Maintain Battlespace Awareness
A.3 Provide Command & Control/ Decision Support

BA/ISR Architecture

- CAPT Exner Lead NNWC SME
- OV Product Development Summary:
  - Three reviews completed since effort started January 2005
  - Focused on OV-5 Activity Hierarchy and high level OV-2 and OV-4 Diagrams
    - Included Representatives from NNWC, CFFC, MCCDC, etc.
  - OV-5 Hierarchy incorporates activities from multiple sources (listed on next slide)

BA/ISR Architecture References

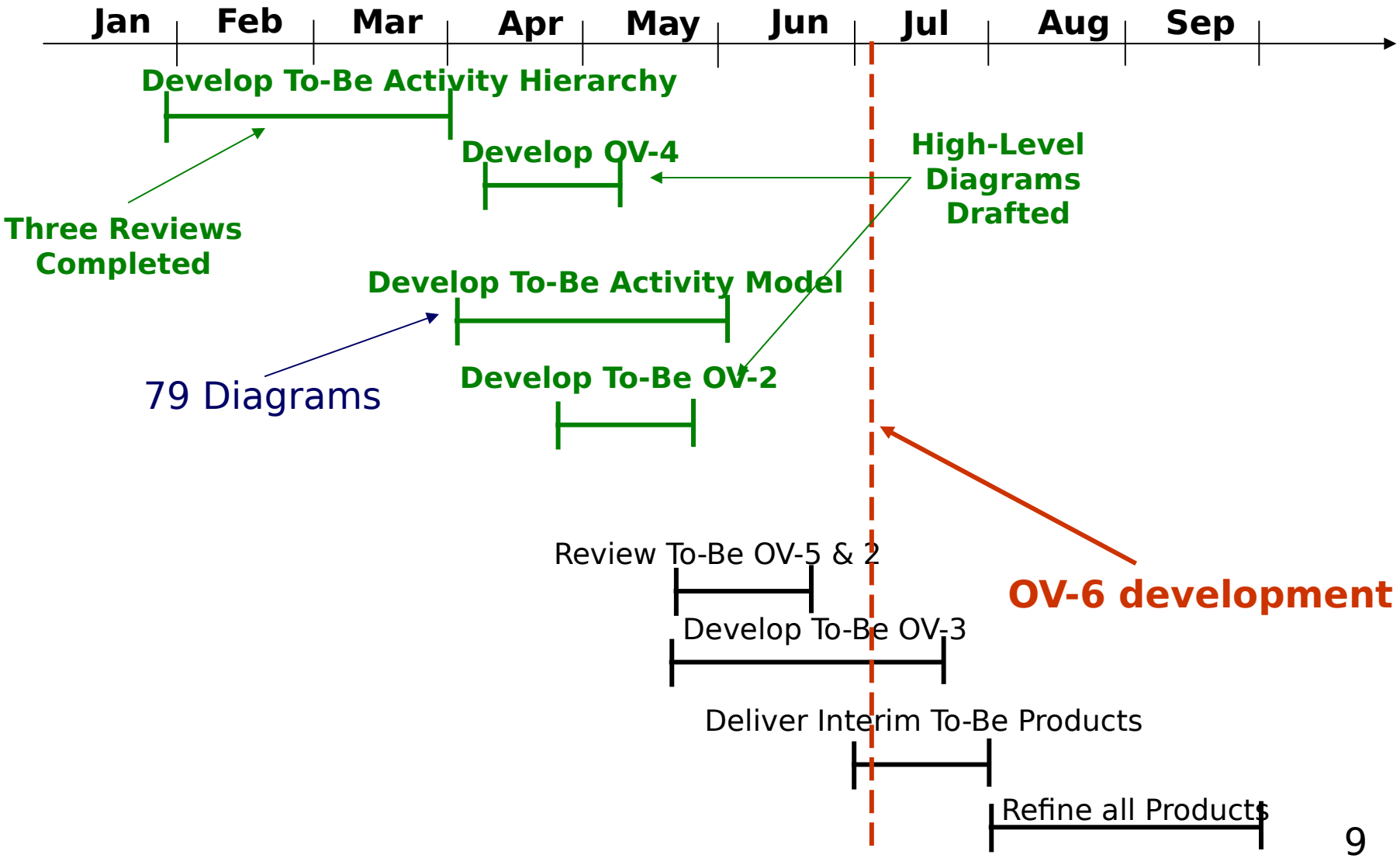
Navy To-Be Battlespace Awareness/ISR Node Tree (OV-05 Node Tree)
System Architect
Wed Jun 08, 2005 16:22

Comment

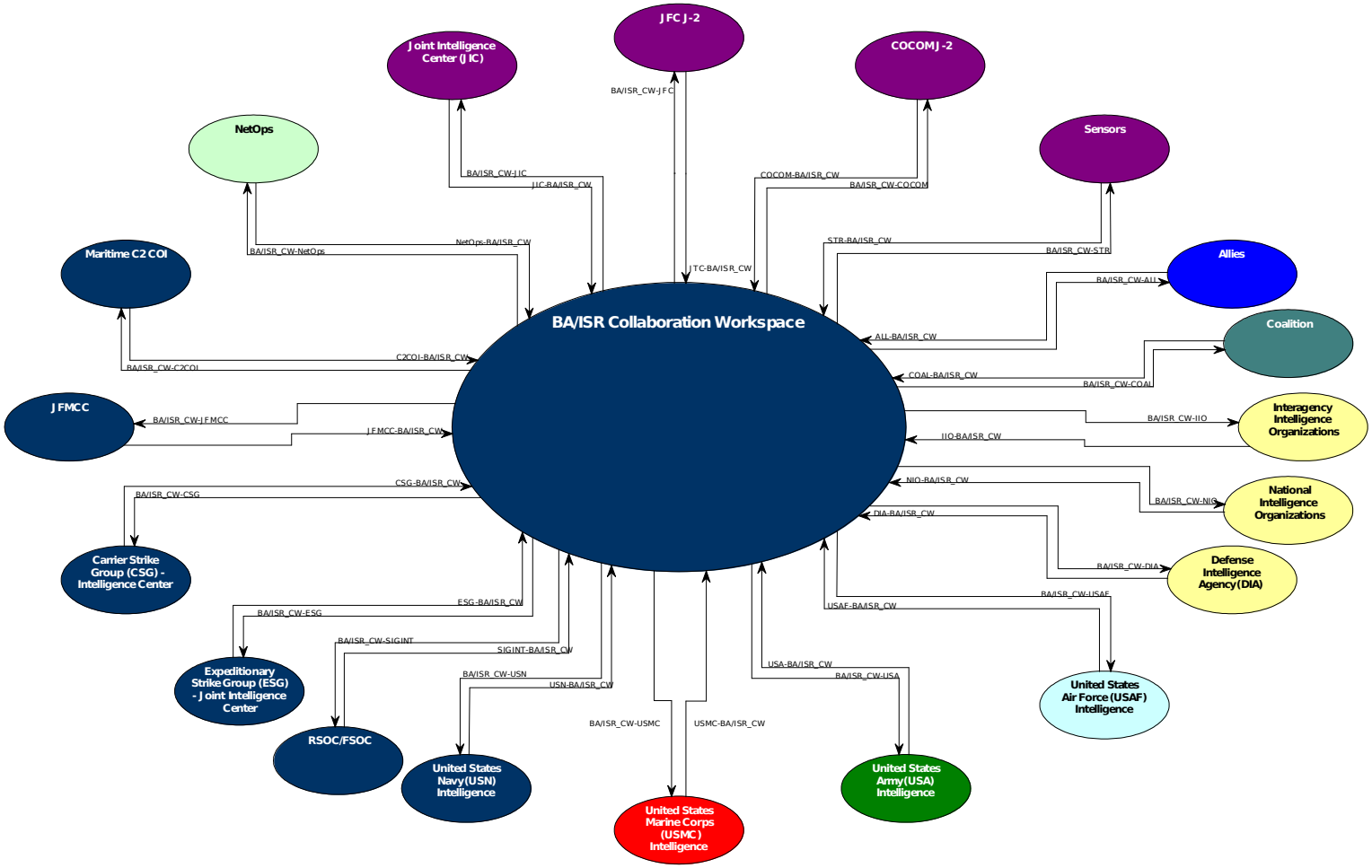
Source Documents for this product include the following:

1. **Joint Functional Concept for Battlespace Awareness, V2.1, 31 December 2003**
2. **C2C/FORCEnet ISR Interoperability Strategy, August 2004**
3. **NCOW RM V1.1, November 2004**
4. **Predictive Battlespace Awareness ICD, Draft, 26 Feb 2004**
5. **OPNAV N20 To-be Architecture**
6. **Time Critical Strike (TCS) Threads developed by SSC Charleston**
7. **JFMCC TACMEMO 3-32-03**
8. **FORCEnet Functional Concept**
9. **Various Joint Doctrine Publications**

Battlespace Awareness/ISR Schedule



BA/ISR Top Level OV-2



BA/ISR Community Of Interest (COI)

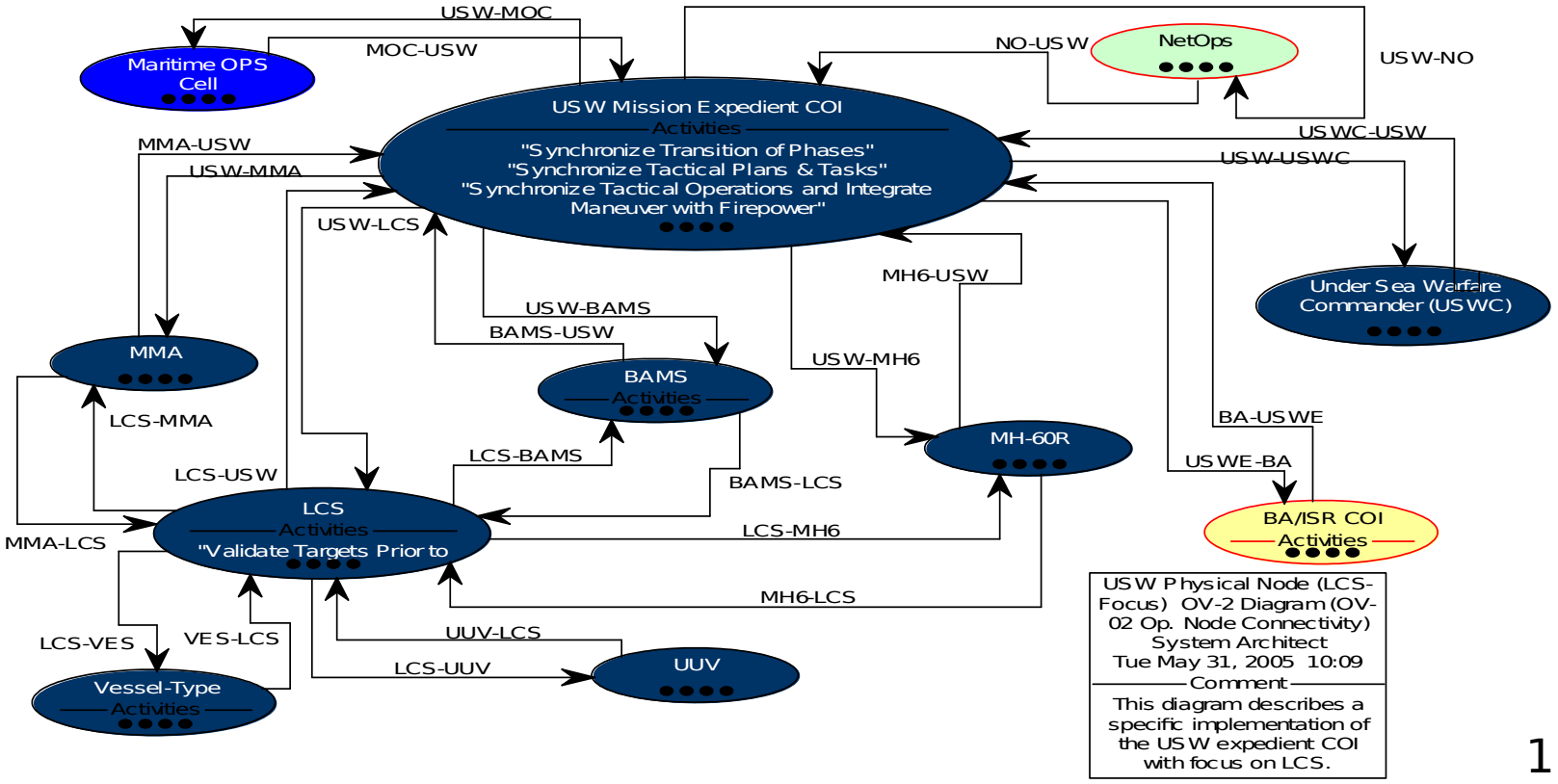
BA/ISR Community Of Interest (COI) - [REV Souba] (OV-02 Op. Node Connectivity)
System Architect
Wed Jun 08, 2005 18:22

Comment

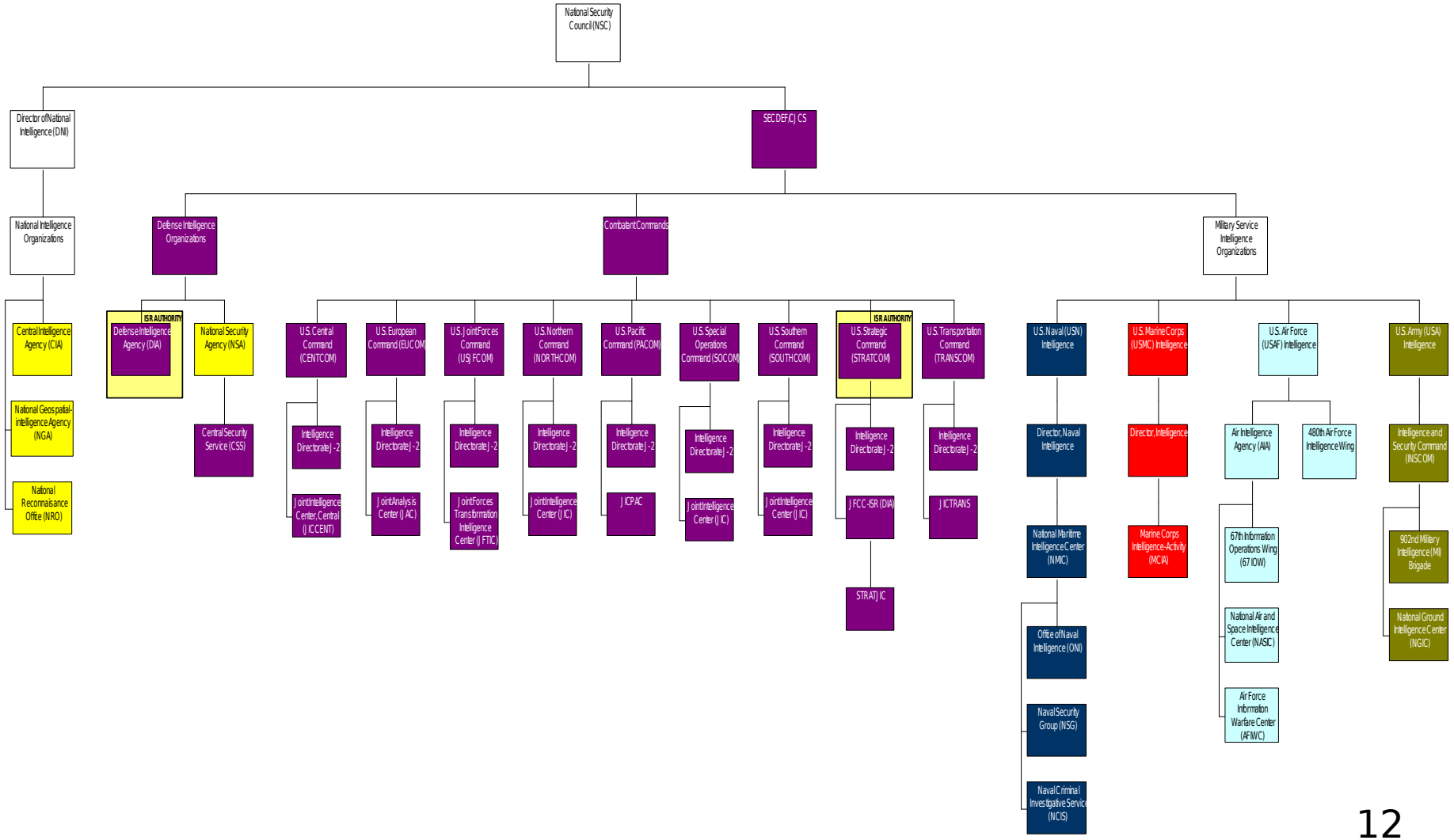
This OV-2 is the top level diagram that shows the potential participants in an Battlespace Awareness/ISR Community Of Interest (COI). This drawing assumes that an institutional, cross-functional COI has been established to facilitate the conduct of BA/ISR operations and provides a mechanism for storing and sharing information and or data with other components and participants in a joint warfighting environment. It also assumes that an infostructure community of interest has been established in order to support the BA/ISR COI in the area of battlespace awareness, and intelligence, surveillance, and reconnaissance, among other infostructure management related tasks.

BA/ISR OV-2 Product Way Ahead

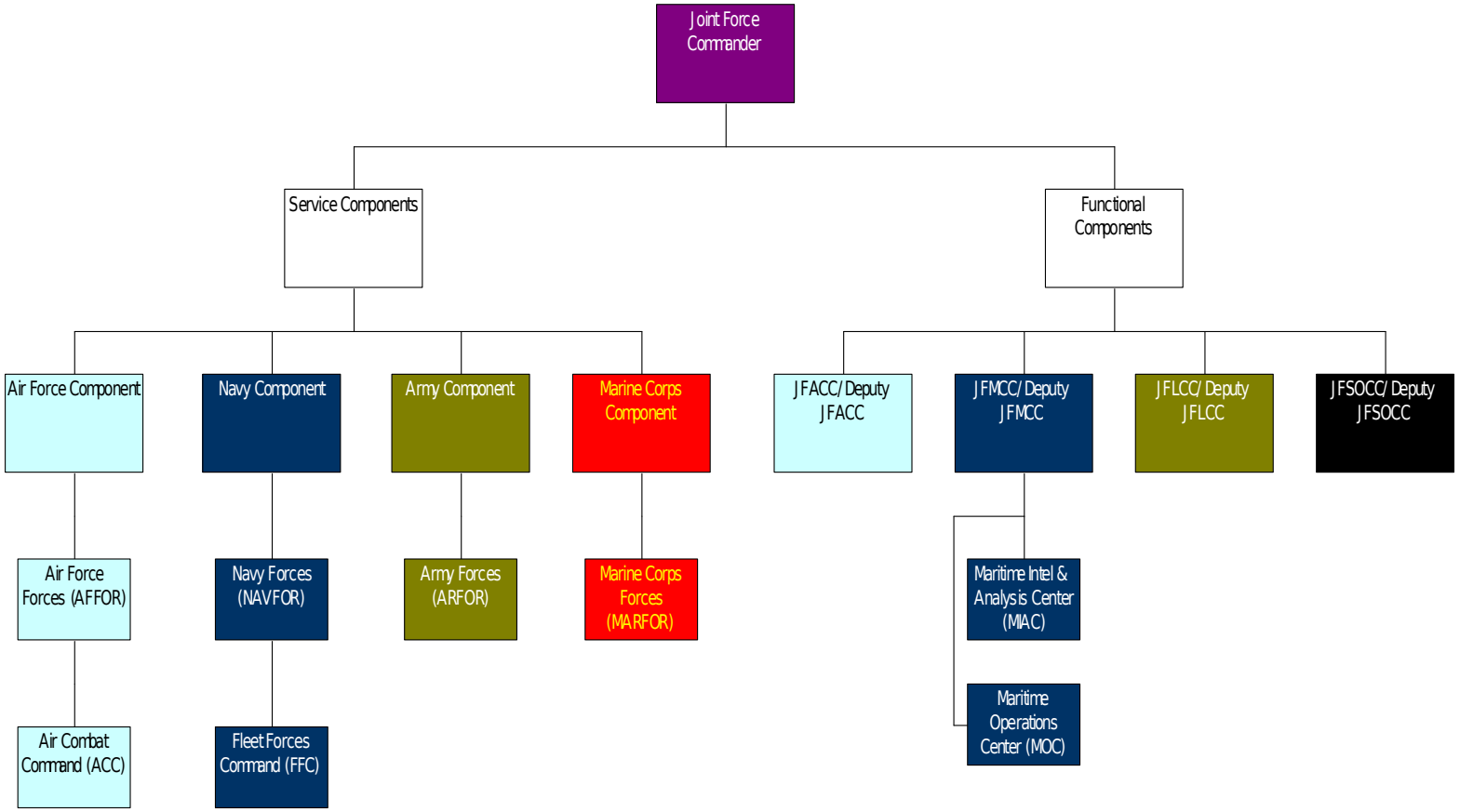
- Develop diagrams based on operational context/mission thread to support transition to SV-1s similar to **sample diagram** below:



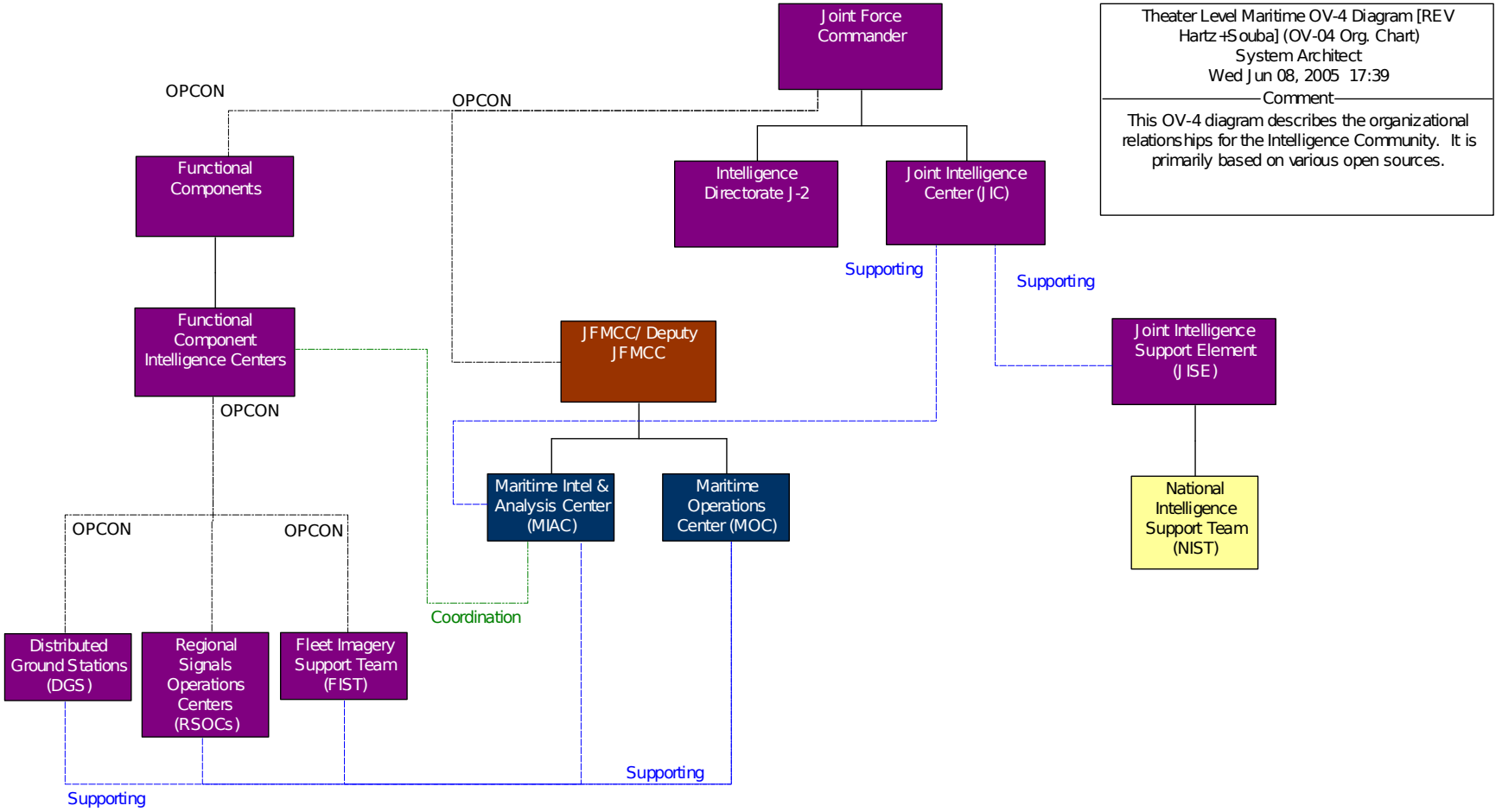
BA/ISR Top Level OV-4 Diagram



BA/ISR OV-4 Diagram Decomposition



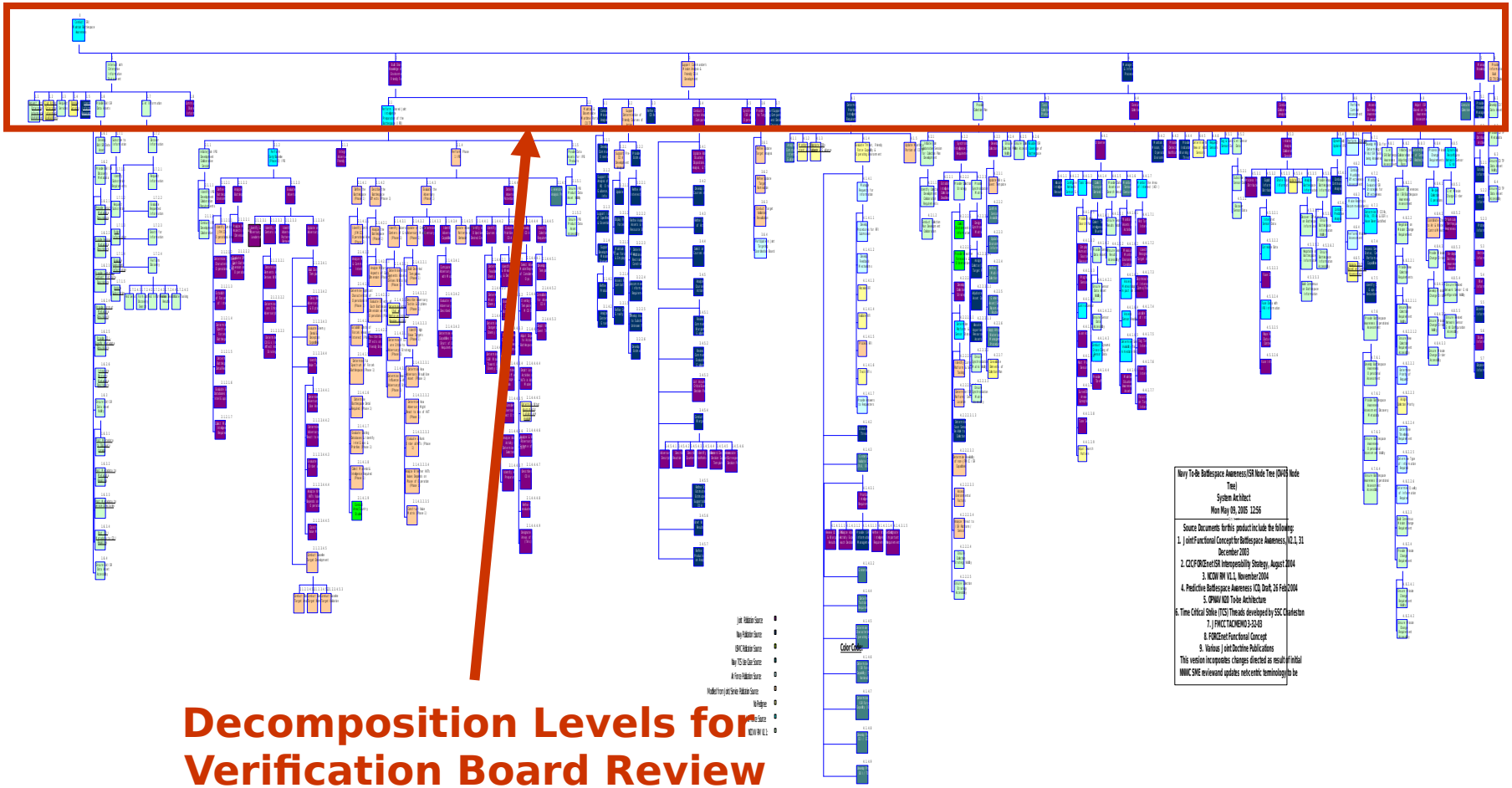
BA/ISR Theater Level OV-4 Diagram



BA/ISR OV-4 Way Ahead

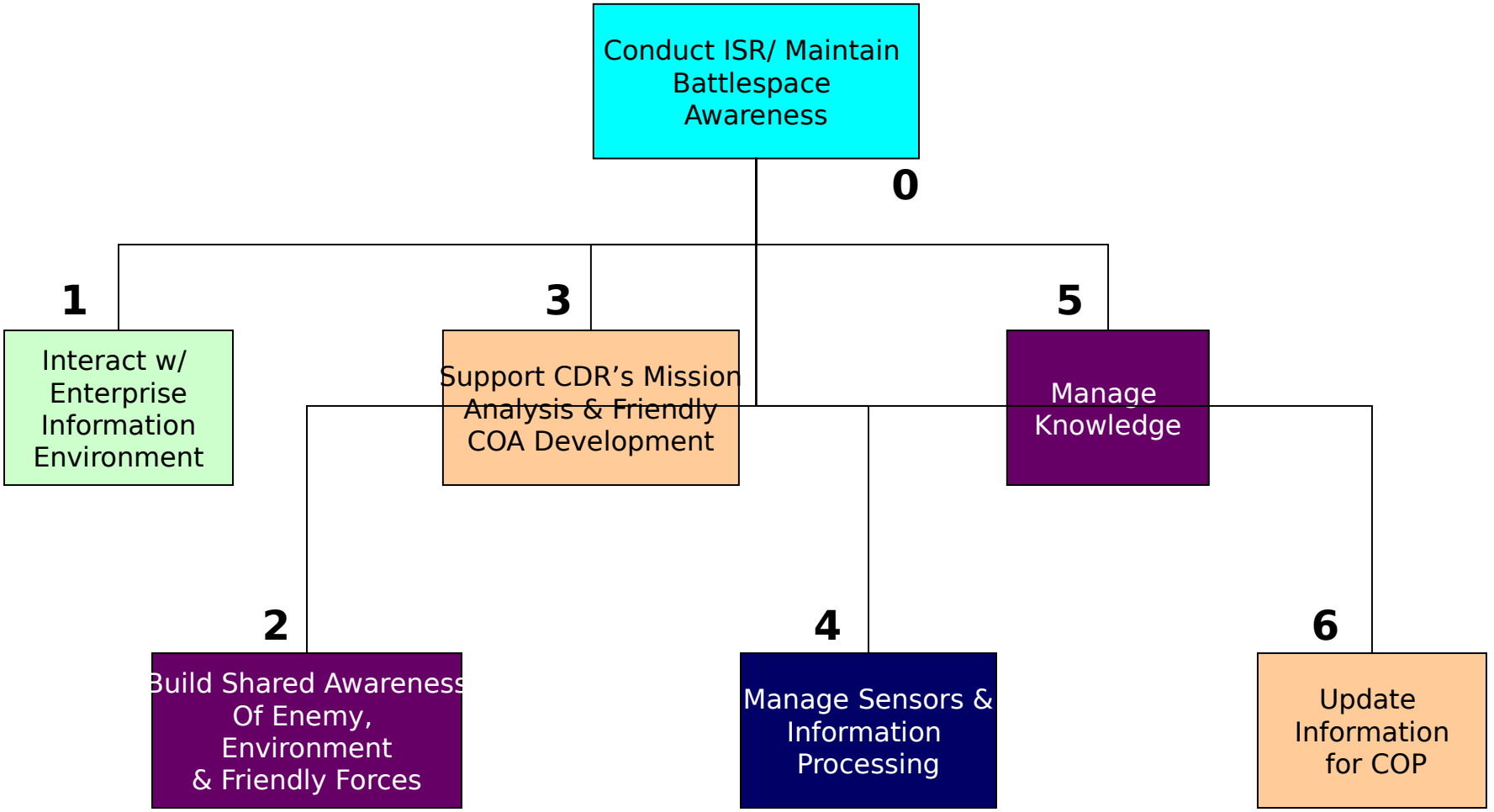
- Build additional diagrams based on operational context/mission thread in conjunction with OV-2 development
  - Describe various organizational constructs adapted to address situation at hand

BA/ISR Activity Hierarchy

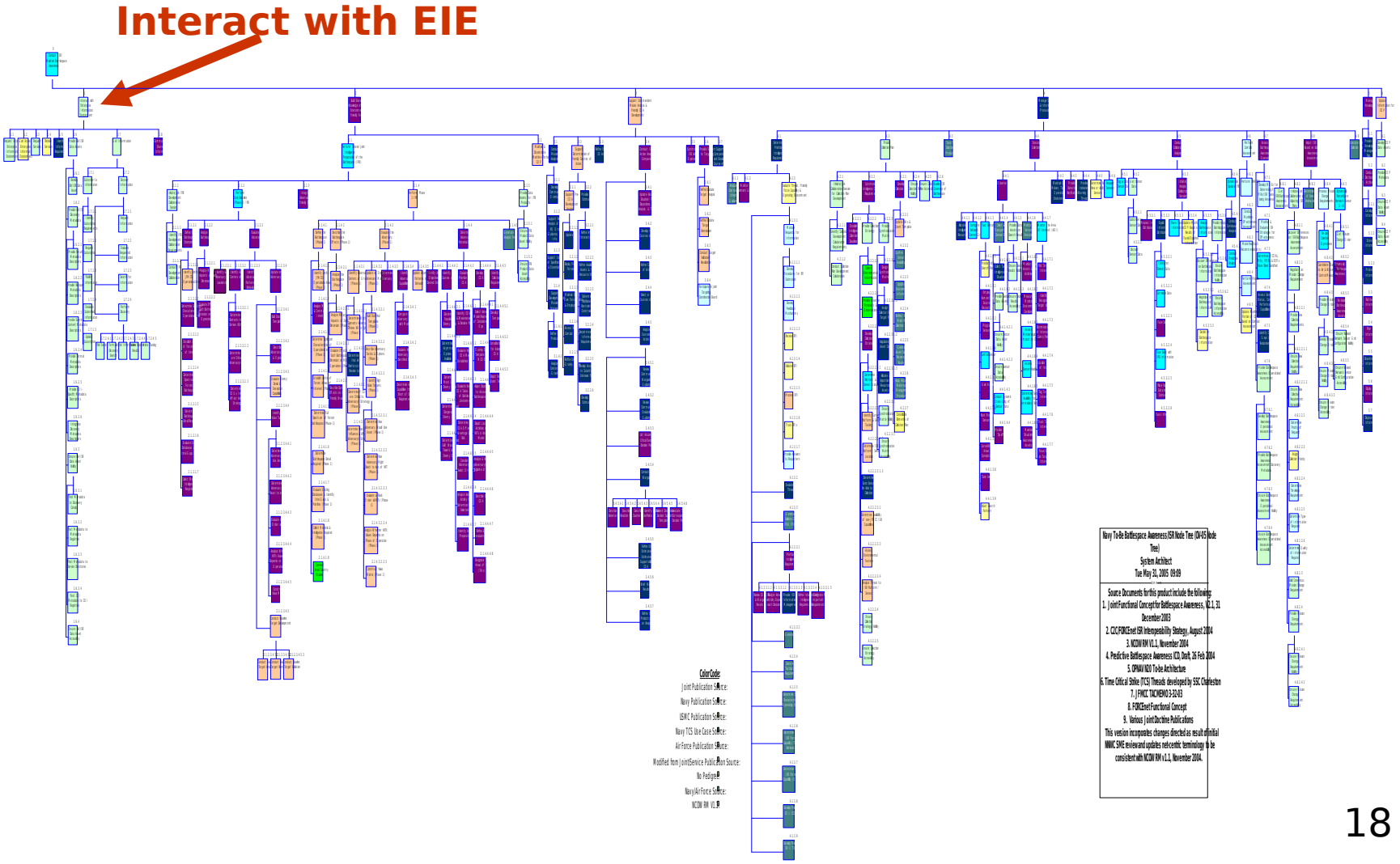


Decomposition Levels for Verification Board Review

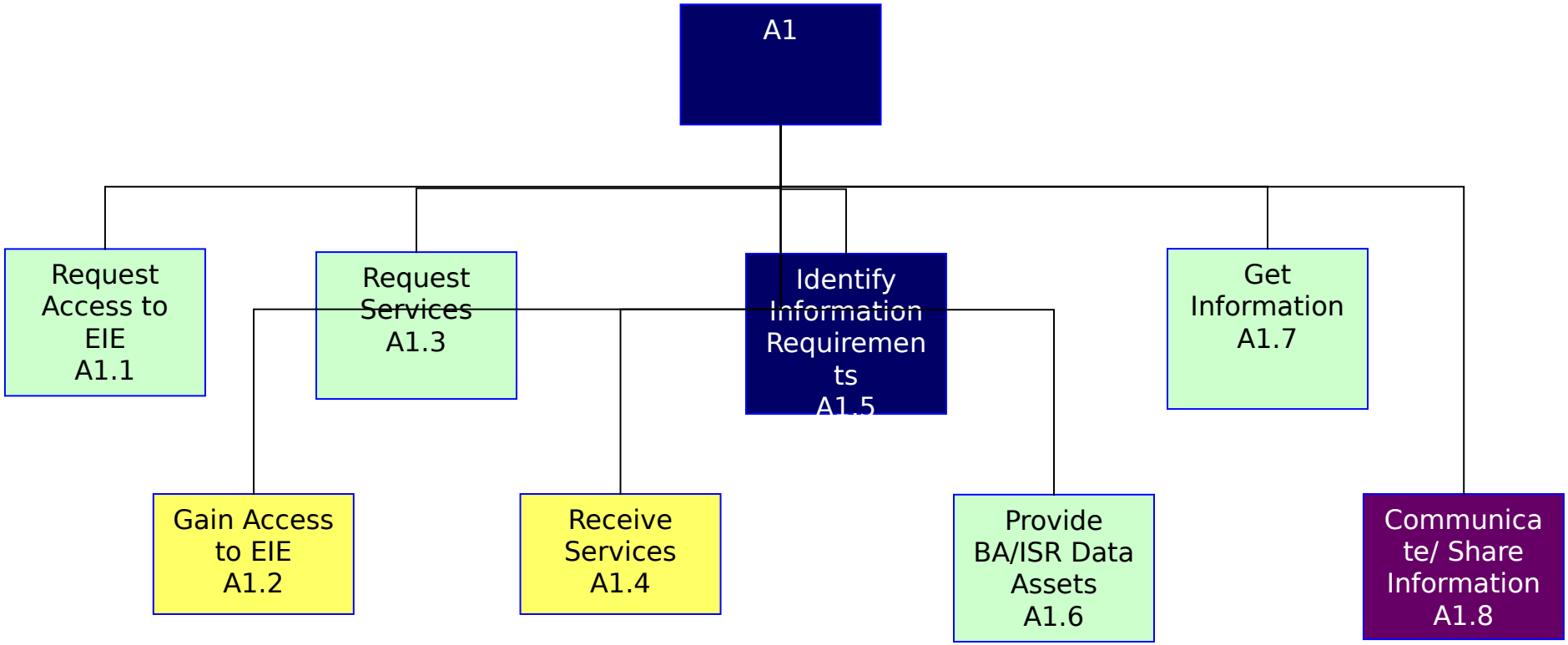
Battlespace Awareness (BA)/ISR



BA/ISR Activity Hierarchy


Interact with EIE
Navy To-Be Battlespace Awareness ISR Node Tree (OV45 Node Tree)
System Architect
Tue May 31, 2005 09:09
Source Documents for this product include the following:
1. Joint Functional Concept for Battlespace Awareness, XX.1, 31 December 2003
2. C2C/FORCEnet ISR Interoperability Strategy, August 2004
3. NCOW RM V1.1, November 2004
4. Predictive Battlespace Awareness ICD, Draft, 26 Feb 2004
5. OPNAV N2D To-Be Architecture
6. Time Critical Strike (TCS) Threads developed by SSC Charleston
7. JFMCC TACMEMO 3-32-03
8. FORCEnet Functional Concept
9. Various Joint Doctrine Publications
This version incorporates changes directed as result of initial MMC SME review and updates nekcentric terminology to be consistent with NCOW RM v1.1, November 2004.

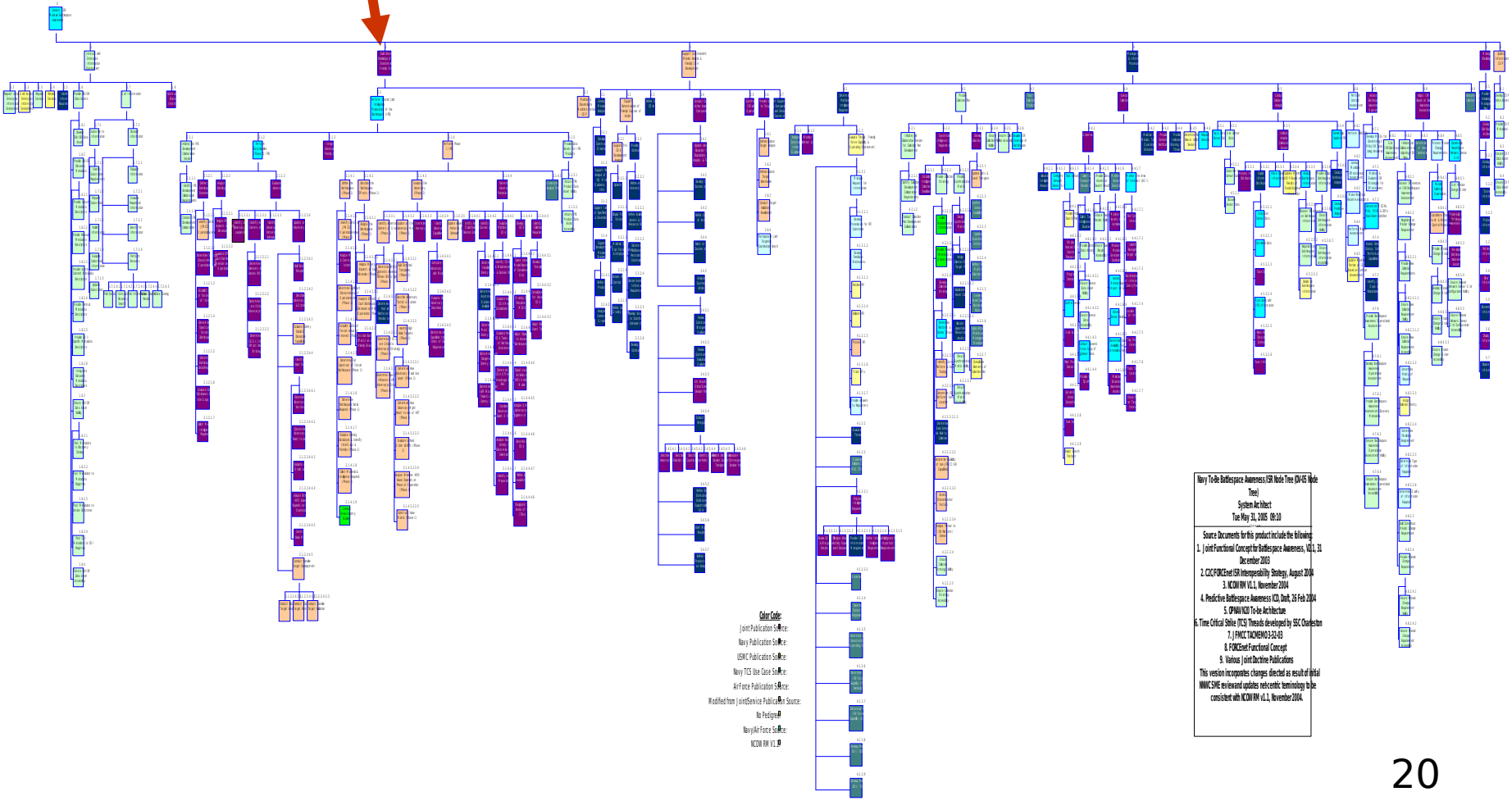
BA/ISR A1 “Interact with EIE”



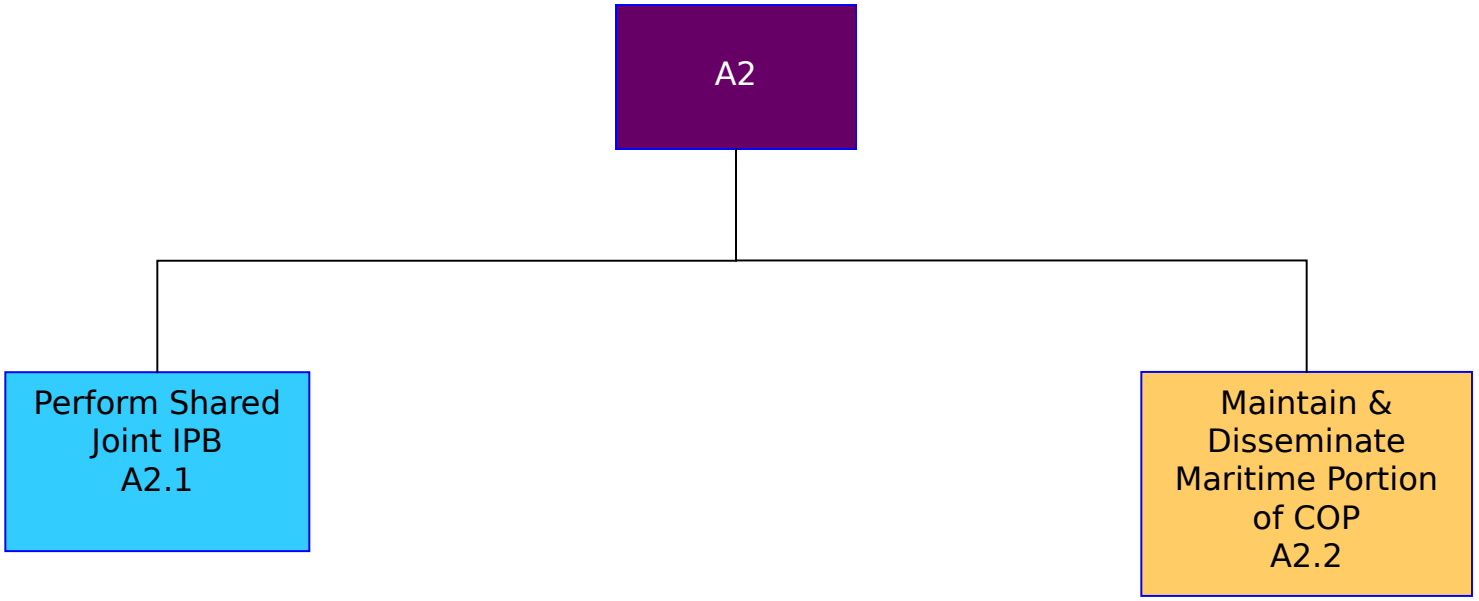
Similar to C2/DS activities for interacting with EIE

BA/ISR Activity Hierarchy

Build Shared Awareness



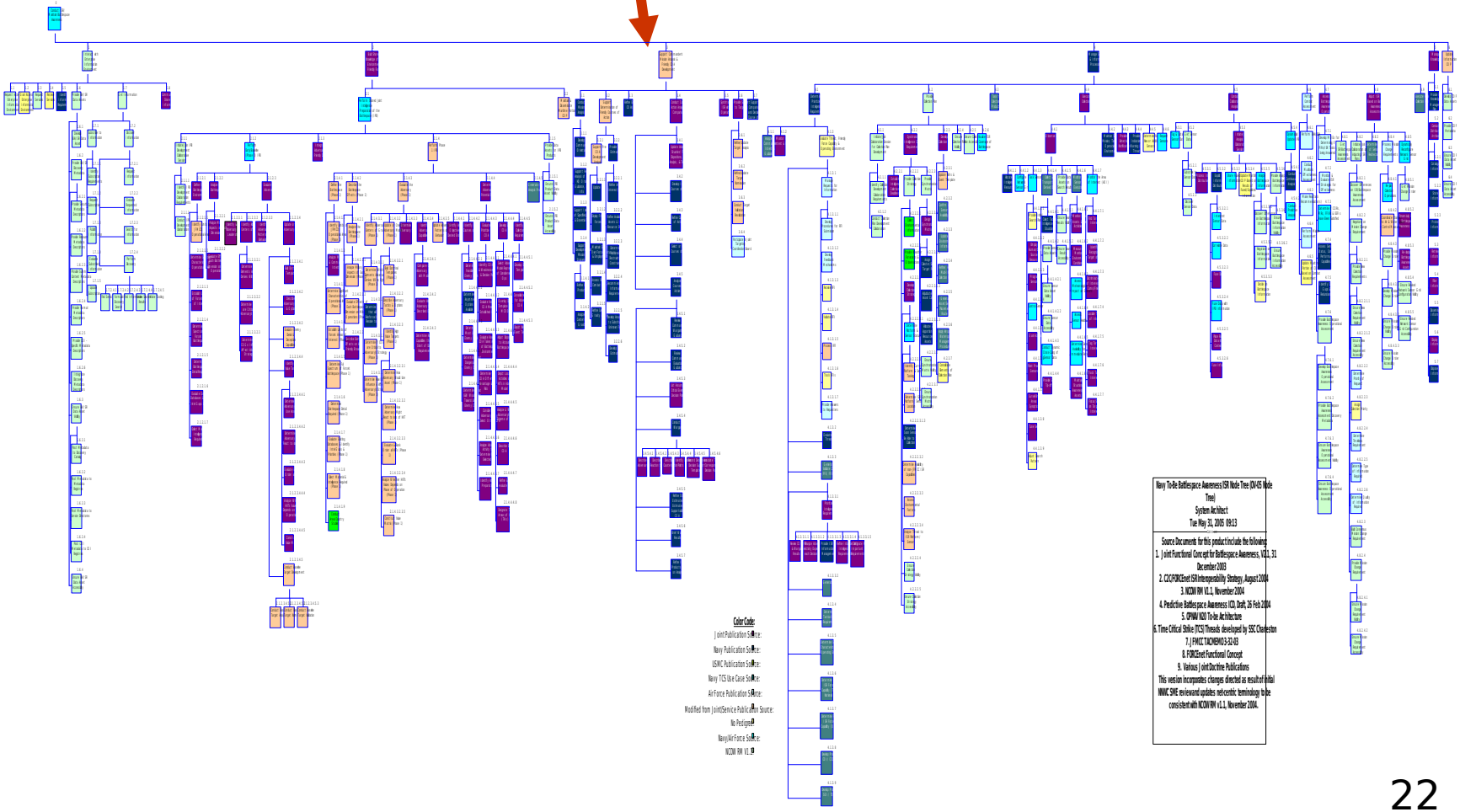
BA/ISR A2
"Build Shared Awareness of Enemy, Environment, & Friendly Forces"



Addresses development of baseline and updated IPB products to support development of COP and COA development

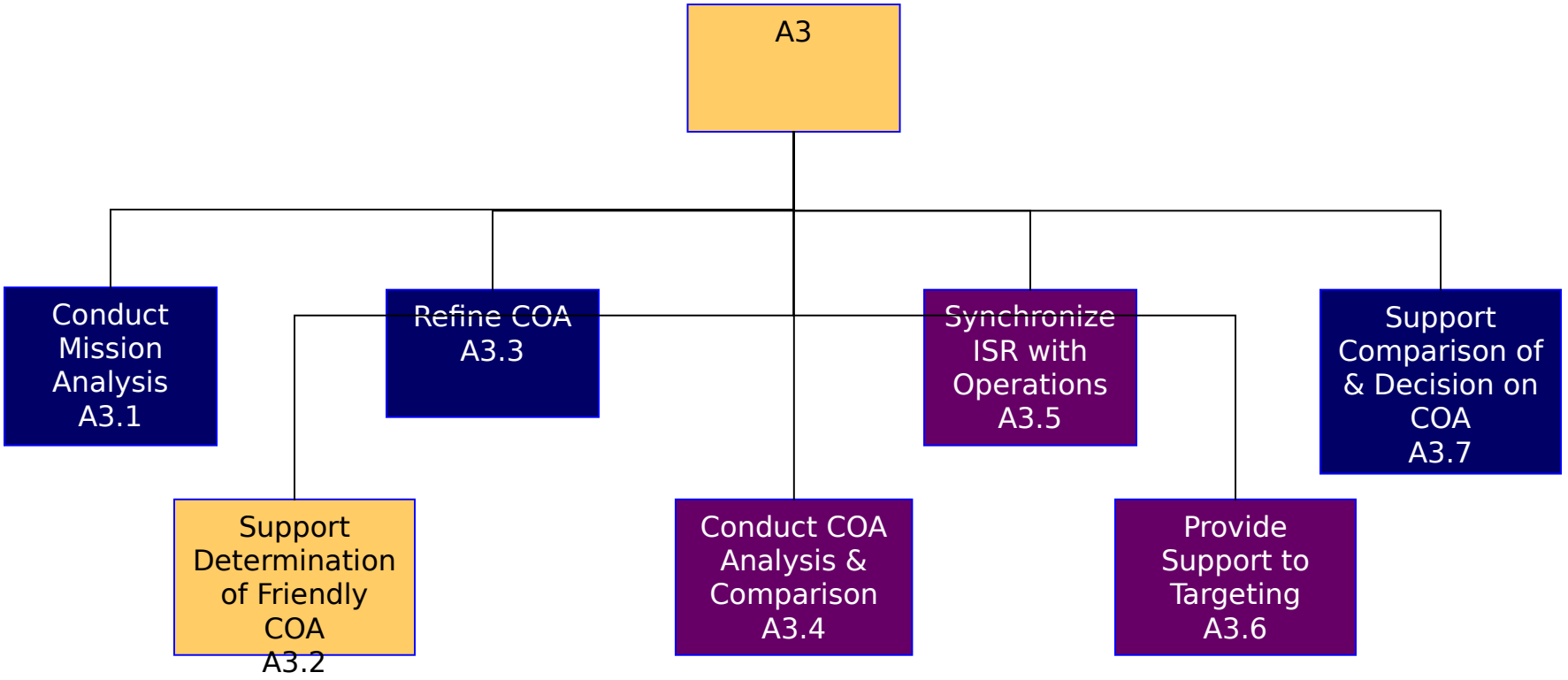
BA/ISR Activity Hierarchy

Support CDR's Mission Analysis/COA Selection



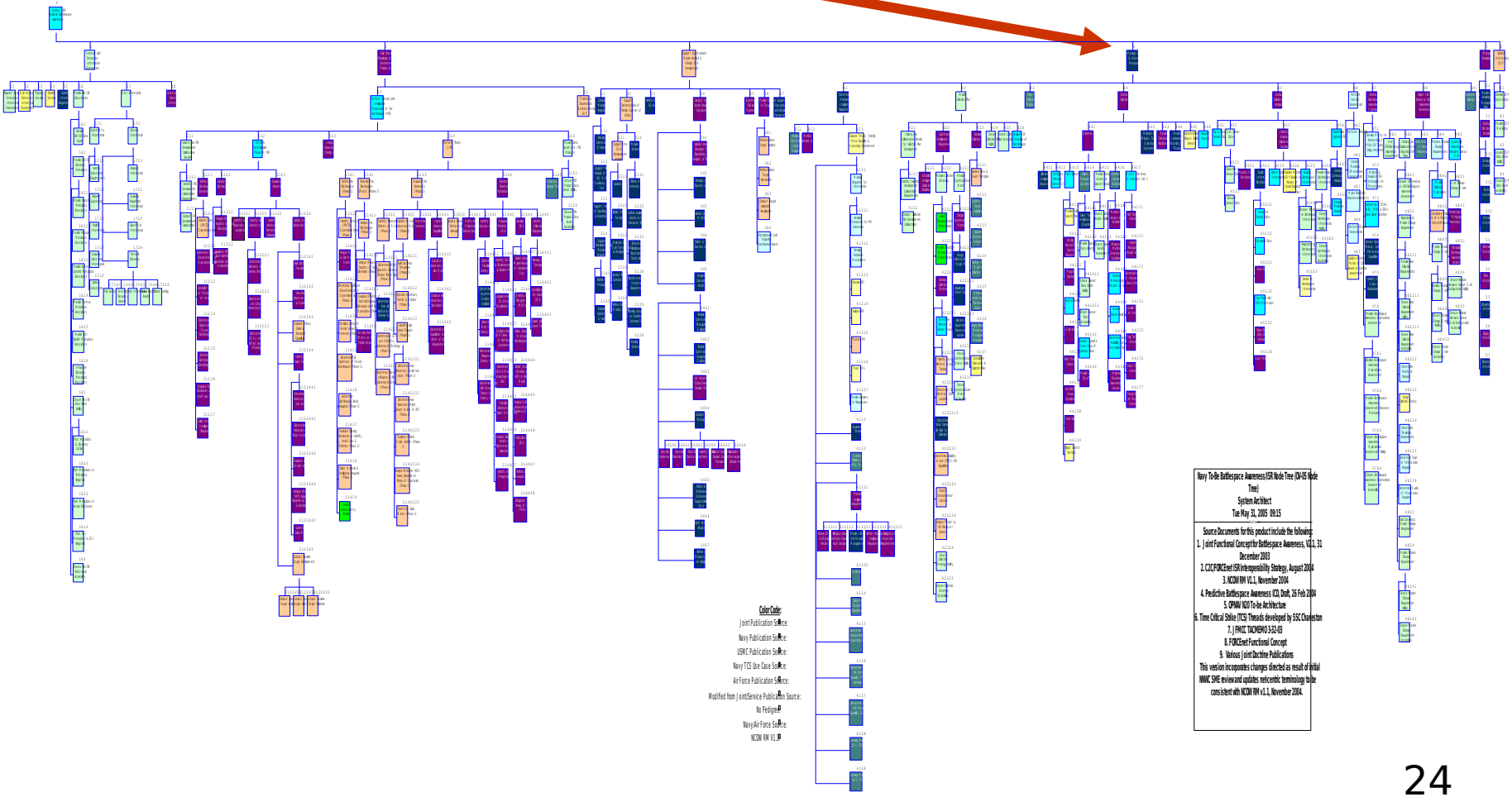
22

BA/ISR A3 "Support Commander's Mission Analysis & Friendly COA Development"

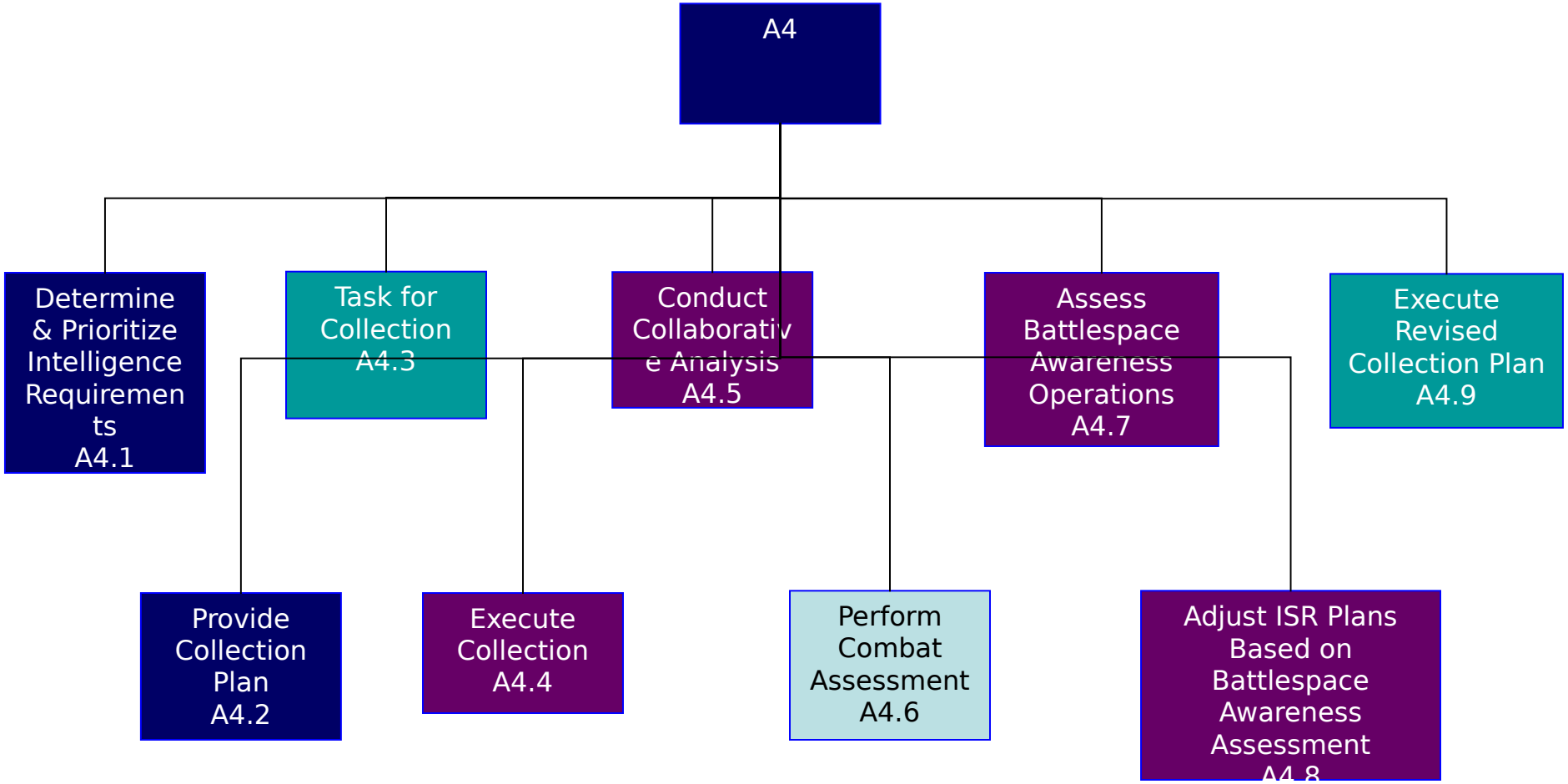

A3
Conduct Mission Analysis A3.1
Refine COA A3.3
Synchronize ISR with Operations A3.5
Support Comparison of & Decision on COA A3.7
Support Determination of Friendly COA A3.2
Conduct COA Analysis & Comparison A3.4
Provide Support to Targeting A3.6

BA/ISR Activity Hierarchy

Manage Sensors & Info Processing

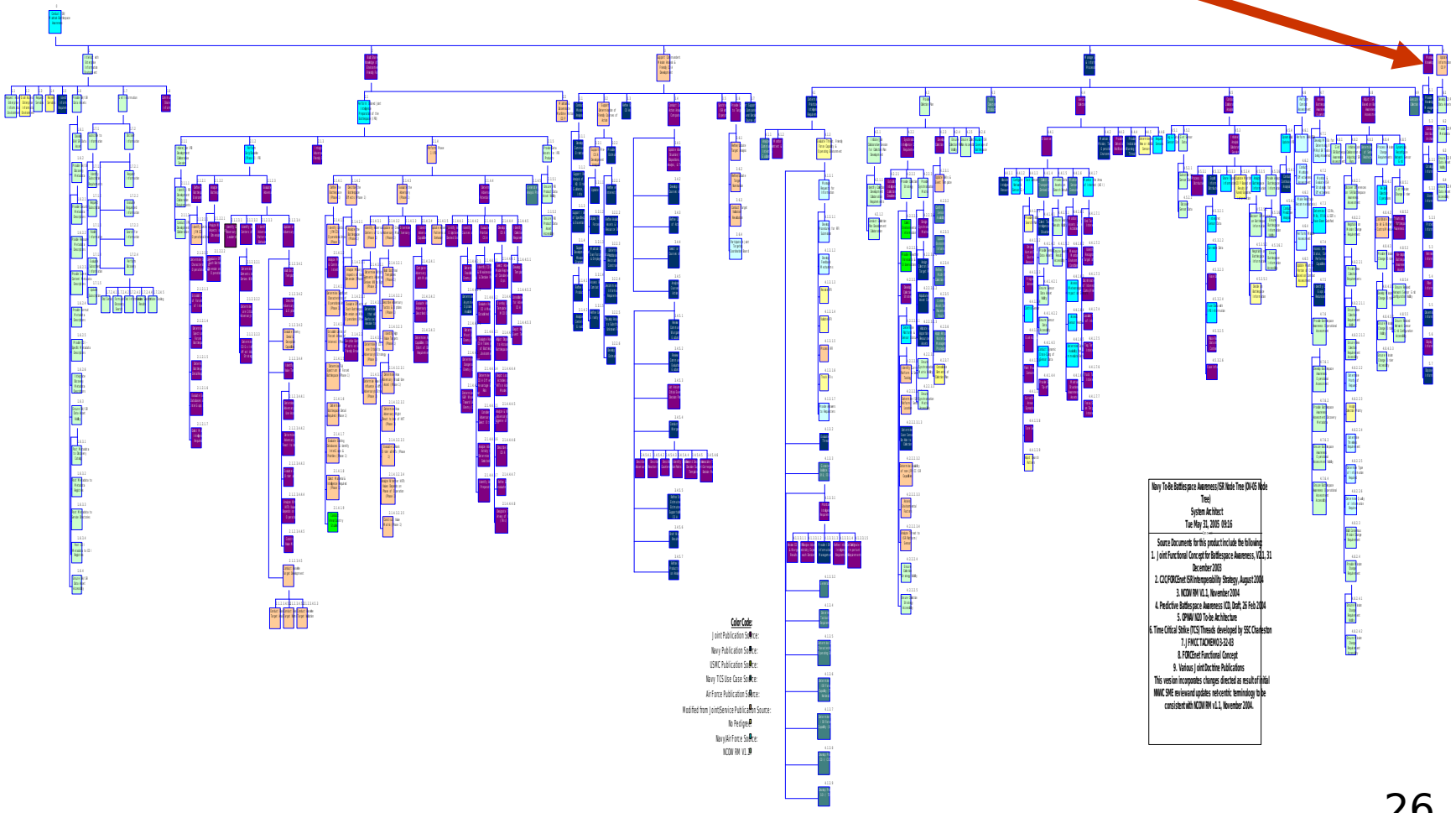


BA/ISR A4 "Manage Sensors & Information Processing"

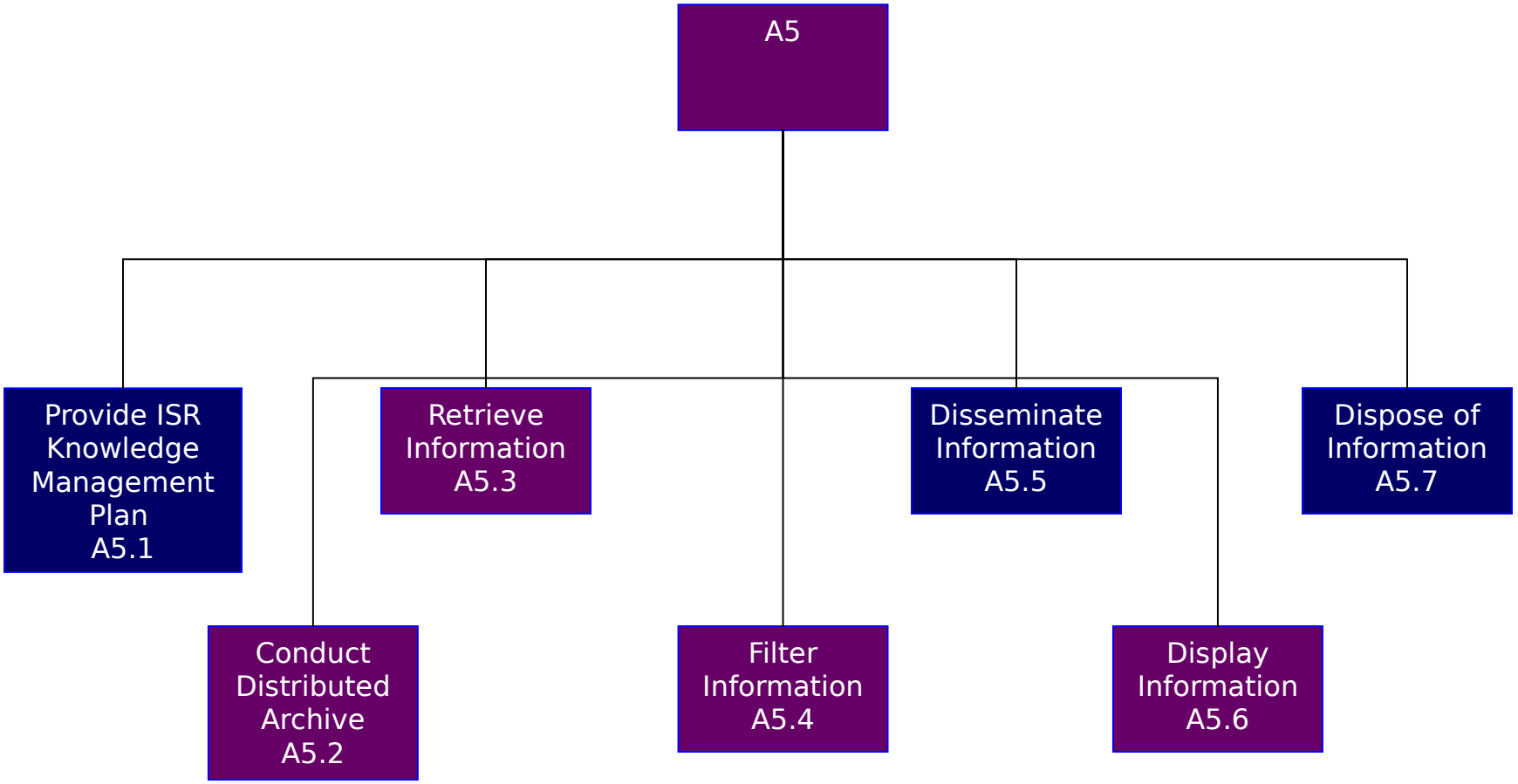

A4
Determine & Prioritize Intelligence Requirements A4.1
Task for Collection A4.3
Conduct Collaborative Analysis A4.5
Assess Battlespace Awareness Operations A4.7
Execute Revised Collection Plan A4.9
Provide Collection Plan A4.2
Execute Collection A4.4
Perform Combat Assessment A4.6
Adjust ISR Plans Based on Battlespace Awareness Assessment A4.8

BA/ISR Activity Hierarchy

Manage Knowledge



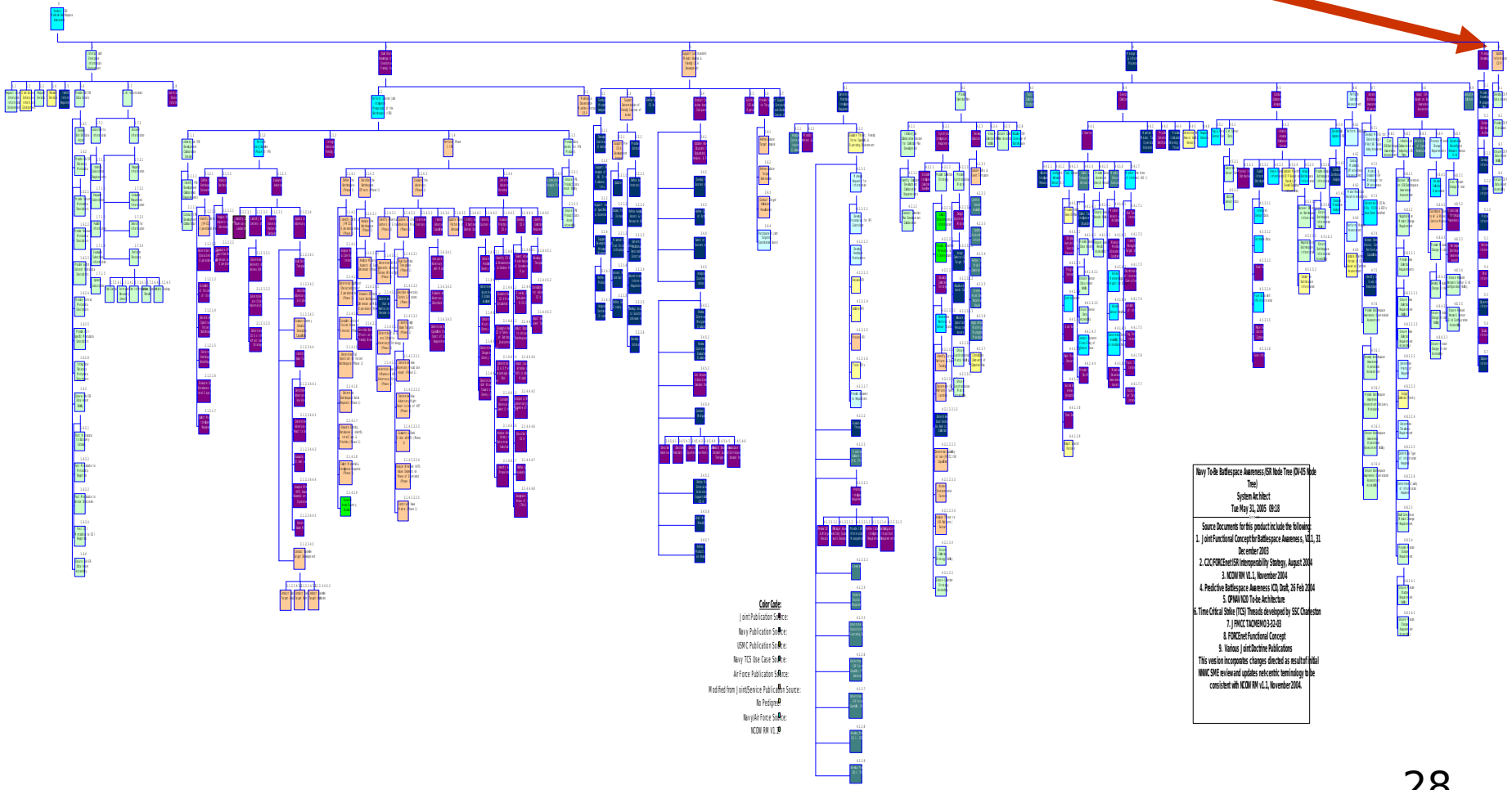
BA/ISR A5 “Manage Knowledge”



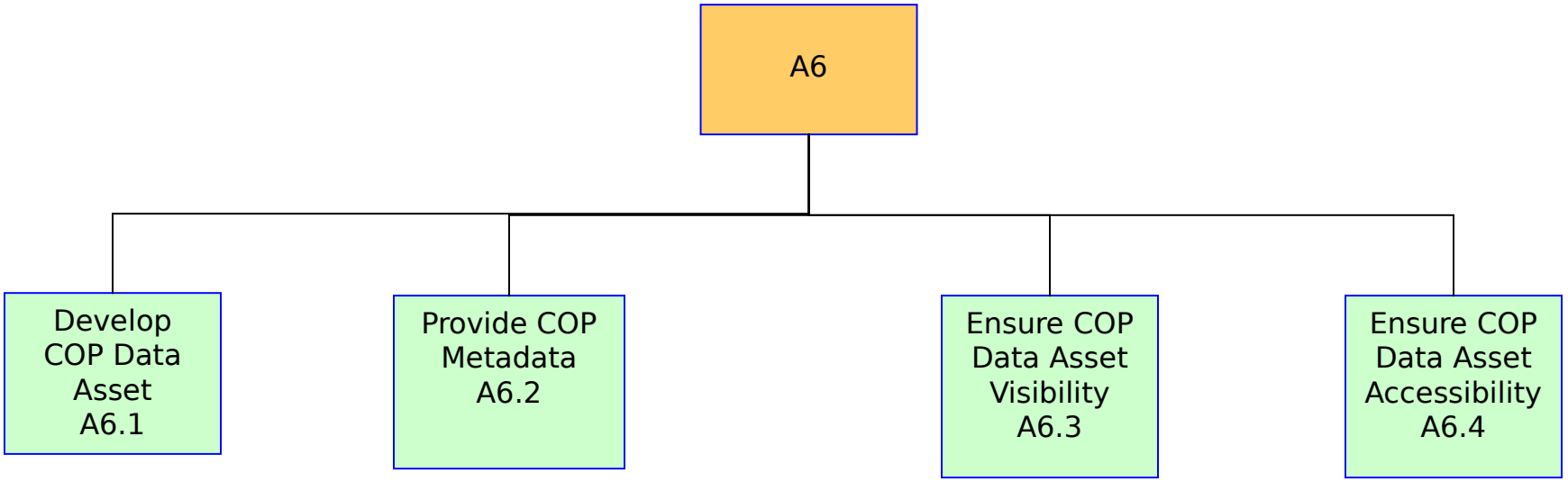
Similar to C2/DS “Manage Knowledge” Activities

BA/ISR Activity Hierarchy

Provide Info to Build COP



BA/ISR A6
"Update Information for COP"


A6
Develop COP Data Asset A6.1
Provide COP Metadata A6.2
Ensure COP Data Asset Visibility A6.3
Ensure COP Data Asset Accessibility A6.4

Activities associated with providing data to support COP updates

BA/ISR OV-5 Activity Hierarchy Diagram Way Ahead

- Update OV-5 Activity Hierarchy with SME concurrence based on:
  - BA/ISR OV-5 Activity Model as it continues to evolve
  - OV-6 Mission Thread development
  - Updated concept papers

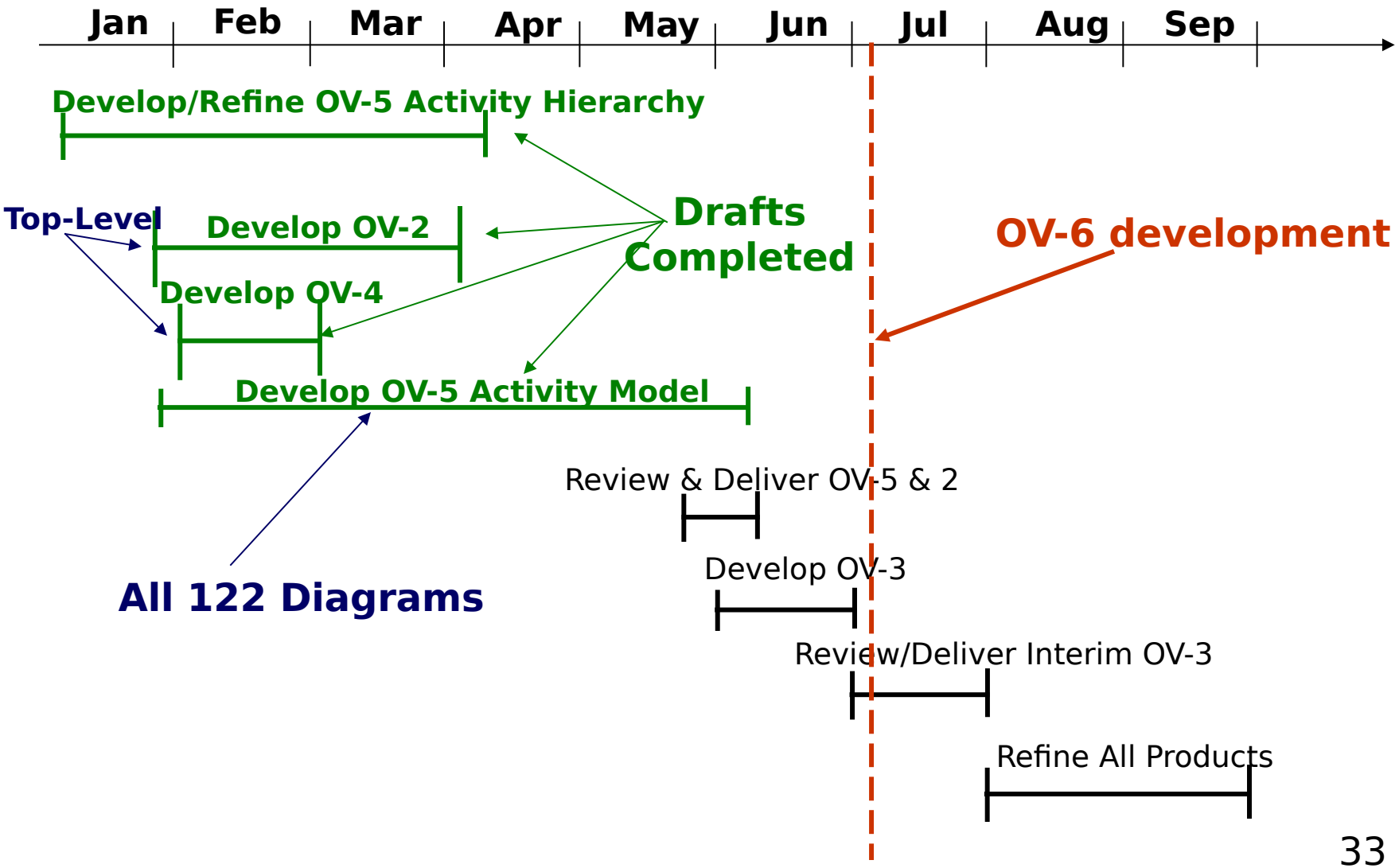
BA/ISR Architecture Recommendation

- Approve briefed diagrams as version 1.0, and place under configuration management:
  - Top level OV-2 and OV-4 diagrams
  - OV-5 Activity Hierarchy Diagram decompositions

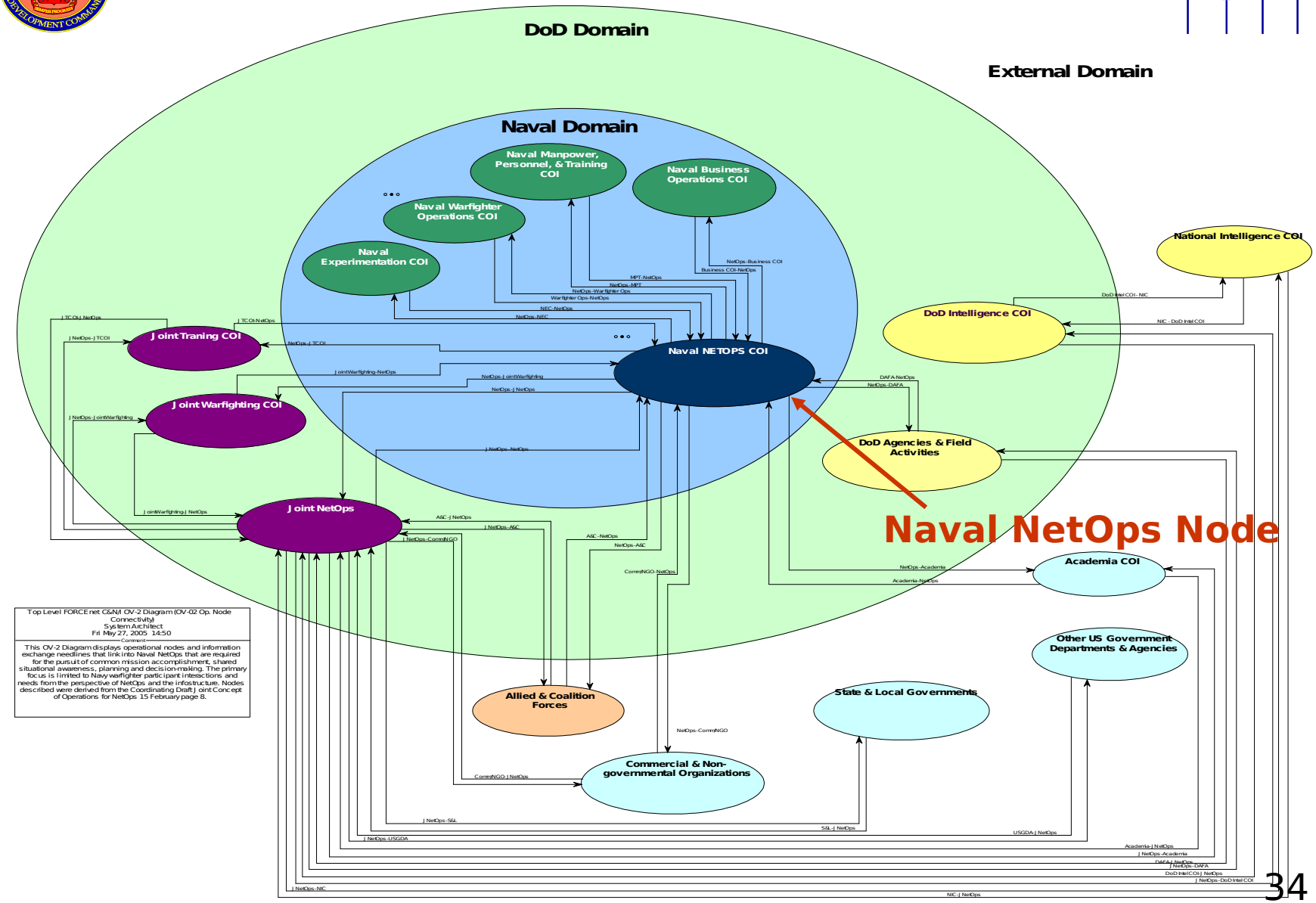
Comms & Networks/ Infostructure (C&N/I) Architecture

- CDR Pearson Lead NNWC SME
- OV Product Development Summary:
  - Five reviews completed since September 2004
    - Focused on OV-5 Activity Hierarchy and high level OV-2, OV-4, & Activity Model diagrams
  - OV-5 Activity Hierarchy incorporates activities from:
    - NCOW RM v1.1, November 2004
    - Draft GIG and Naval Enterprise Network (NetOps) CONOPS
    - USAF ConstellationNet (where appropriate)
  - OV-2 and OV-4 diagrams based on GIG & Navy NetOps CONOPS

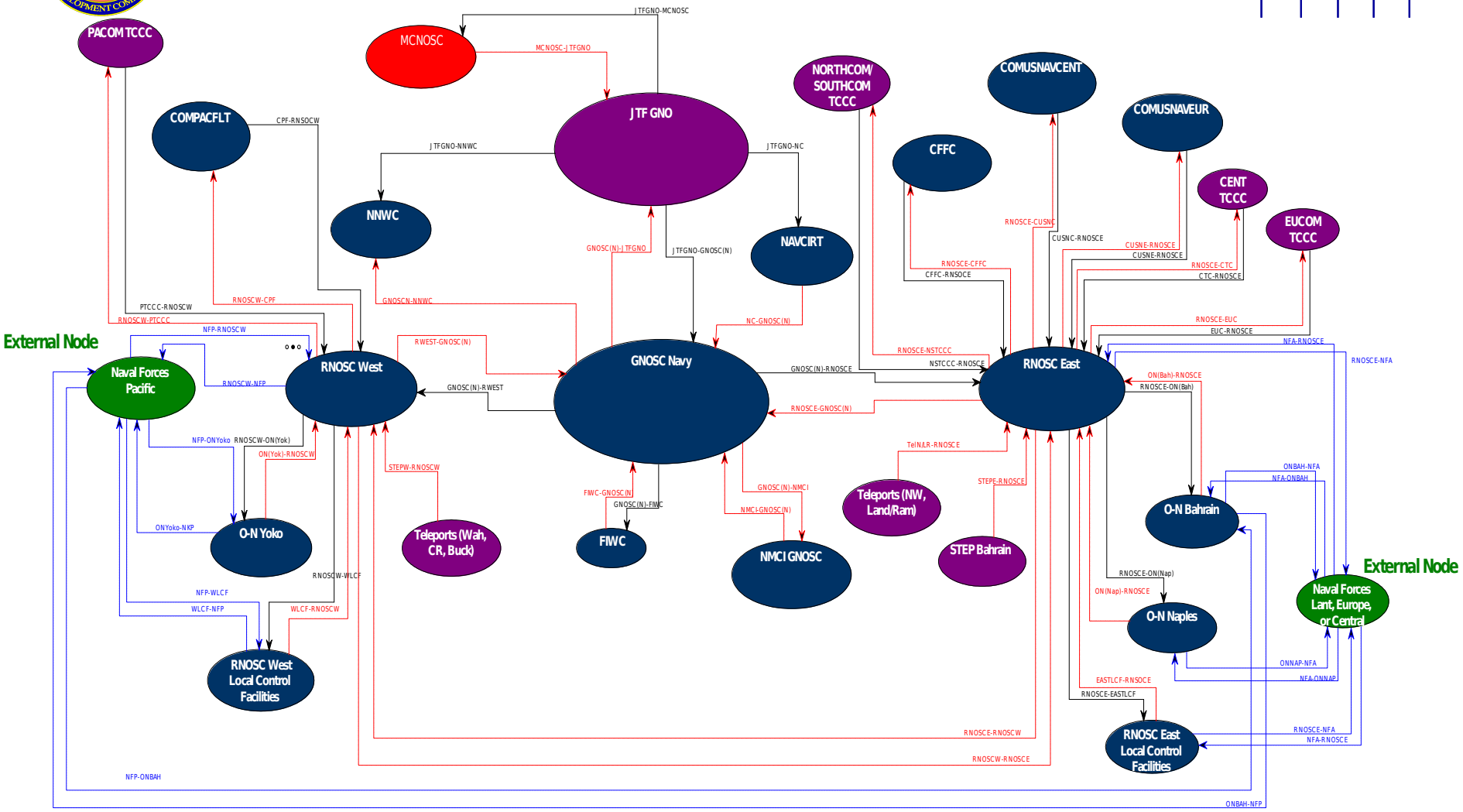
C&N/I Schedule



C&N/I OV-2 (Top Level)


DoD Domain
External Domain
Naval Domain
Naval Manpower, Personnel, & Training COI
Naval Business Operations COI
Naval Warfighter Operations COI
Naval Experimentation COI
National Intelligence COI
DoD Intelligence COI
Joint Traning COI
Naval NETOPS COI
Joint Warfighting COI
DoD Agencies & Field Activities
Joint NetOps
Naval NetOps Node
Academia COI
Other US Government Departments & Agencies
Allied & Coalition Forces
State & Local Governments
Commercial & Non-governmental Organizations
Top Level FORCEnet C&N/I OV-2 Diagram (OV-02 Op. Node Connectivity)
System Architect
Fri May 27, 2005 14:50
Comments
This OV-2 Diagram displays operational nodes and information exchange needlines that link into Naval NetOps that are required for the pursuit of common mission accomplishment, shared situational awareness, planning and decision-making. The primary focus is limited to Navy warfighter participant interactions and needs from the perspective of NetOps and the infostructure. Nodes described were derived from the Coordinating Draft Joint Concept of Operations for NetOps 15 February page 8.

Naval NetOps OV-2 Diagram



Naval NetOps First Level Decomposition (OV-02 Op. Node Connectivity)
SystemArchitect
Fri May 27, 2005 14:50

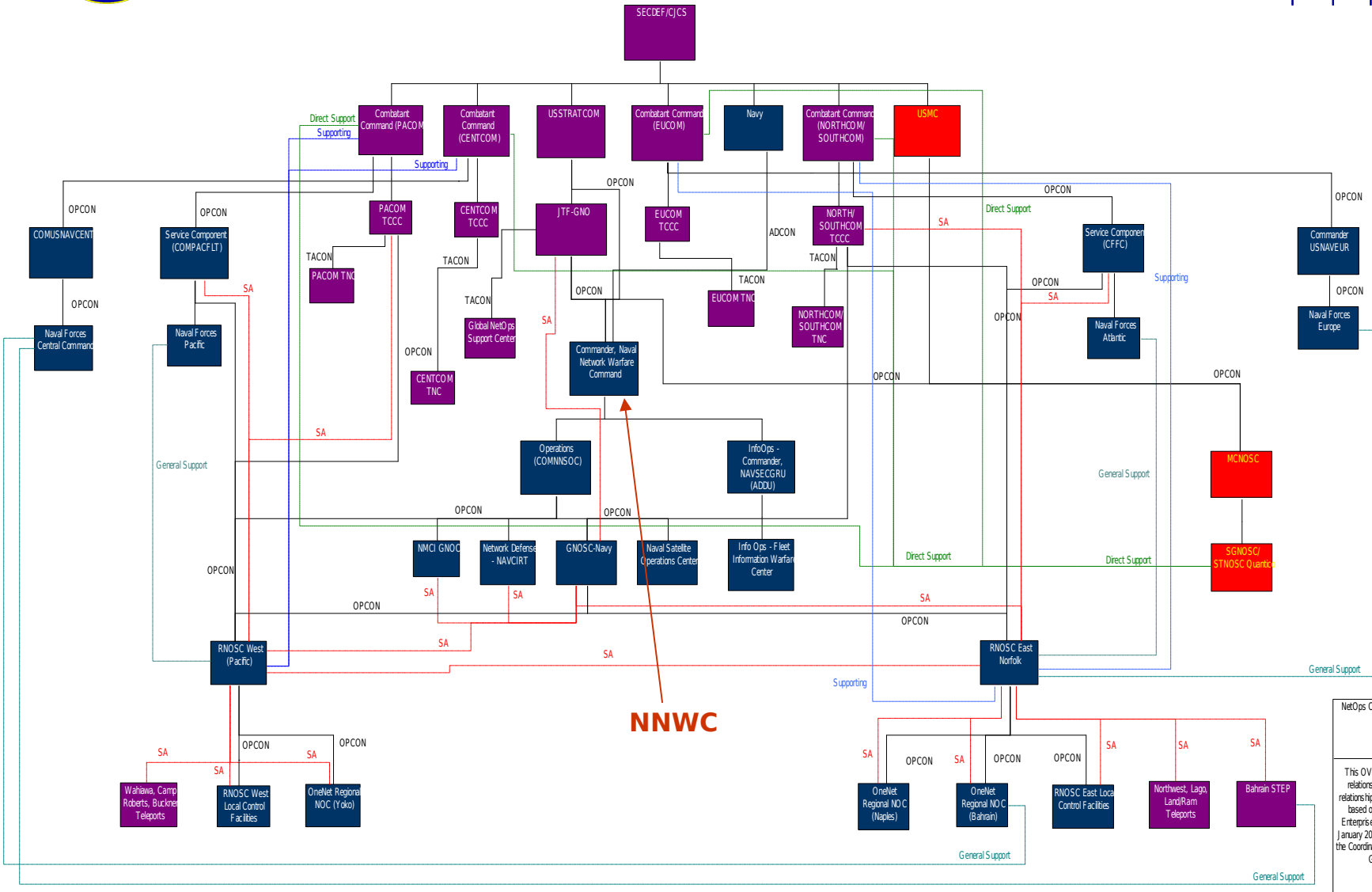
Comment

This OV-2 diagram describes the decomposition of the Navy's NetOps node and the needlines supporting the exchange of information within the naval information environment.

C&N/I OV-2 Product Way Ahead

- Develop additional diagrams based on operational context/mission threads to support transition to SV-1s

C&N/I OV-4



NetOps Organizational Relationships (OV-04 Org. Chart)
System Architect
Tue May 31, 2005 08:09

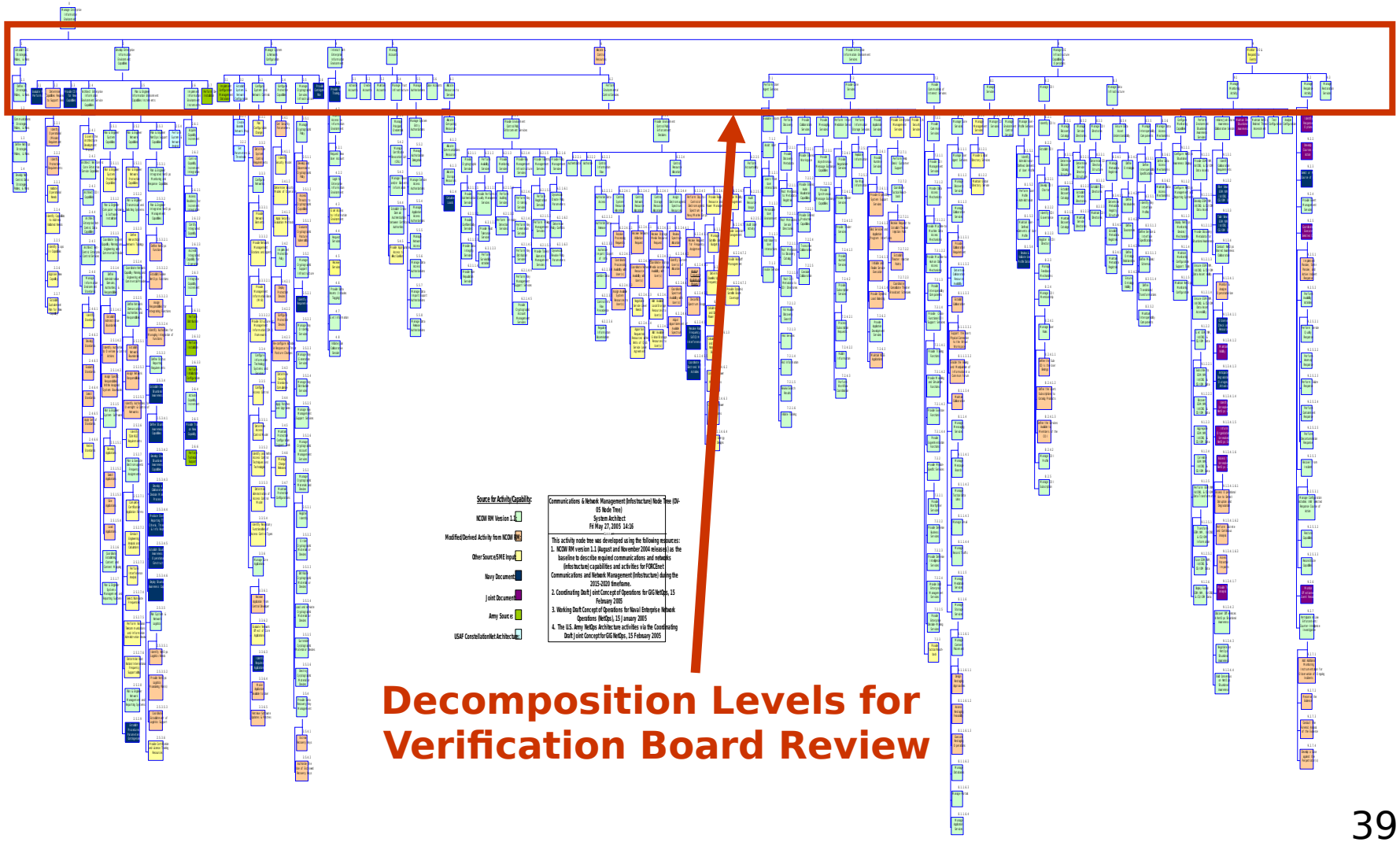
Comment

This OV-4 diagram describes the organizational relationships for NetOps and decomposes the relationship to describe the Navy's involvement. It is based on the Concept of Operations for Naval Enterprise Network Operations (NetOps) dated 15 January 2005, the draft Navy NetOps Roadmap, and the Coordinating Draft Joint Concept of Operations for GIG NetOps 15 February 2005.

C&N/I OV-4 Way Ahead

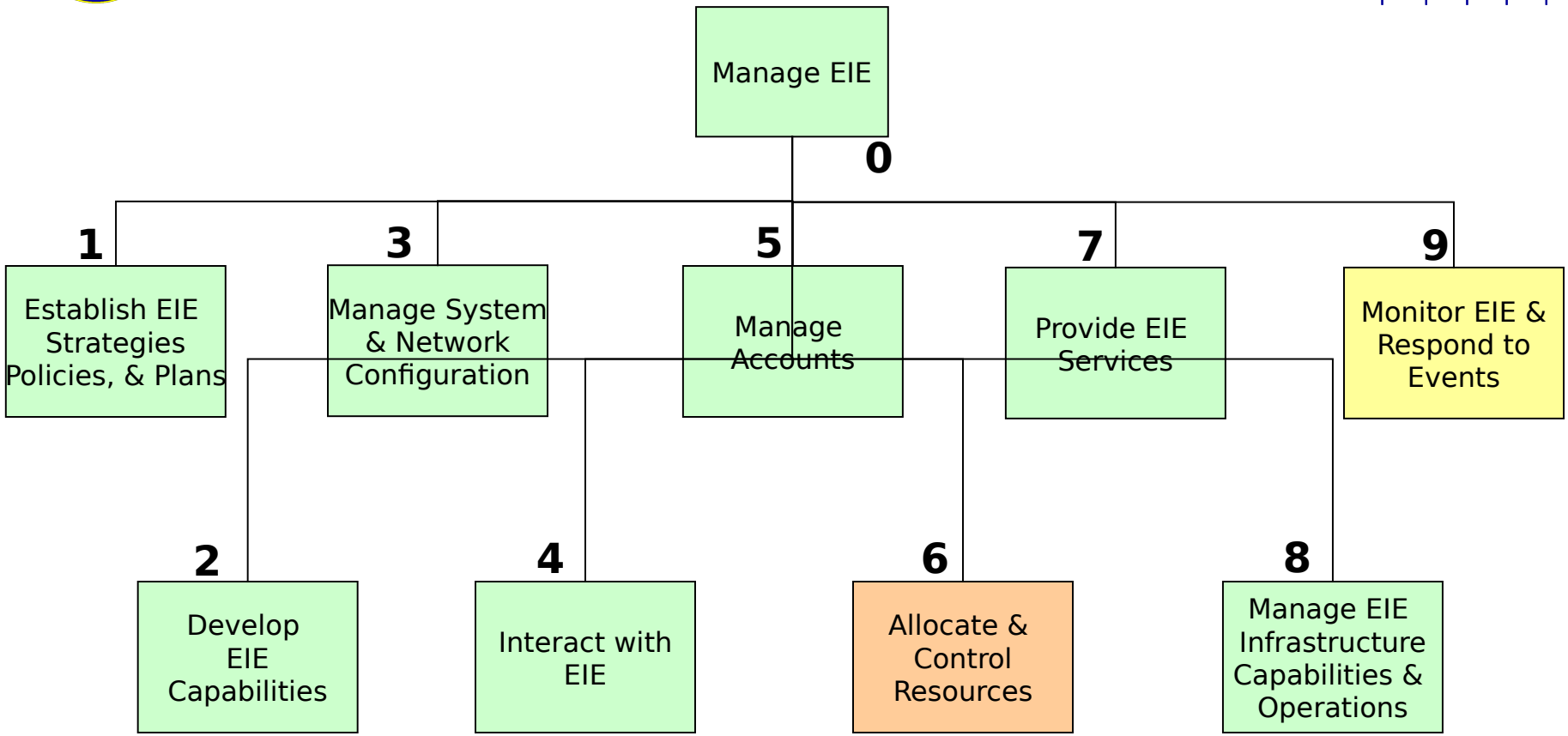
- Build additional diagrams based on operational context/mission thread in conjunction with OV-2 development
  - Describe various organizational constructs adapted to address situation at hand

C&N/I OV-5 Activity Hierarchy


Source for Activity/Capability:
NCOW RM Version 1.1
Modified/Derived Activity from NCOW RM
Other Source/SME Input
Navy Document
Joint Document
Army Source
USAF Constellation/Net Architecture
Communications & Network Management (Infrastructure) Node Tree (OV-05 Node Tree)
System Architect
Fri May 27, 2005 14:16
This activity node tree was developed using the following resources:
1. NCOW RM version 1.1 (August and November 2004 releases) as the baseline to describe required communications and networks (infrastructure) capabilities and activities for FORCEnet Communications and Network Management (Infrastructure) during the 2015-2020 timeframe.
2. Coordinating Draft Joint Concept of Operations for GIG NetOps, 15 February 2005
3. Working Draft Concept of Operations for Naval Enterprise Network Operations (NetOps), 15 January 2005
4. The U.S. Army NetOps Architecture activities via the Coordinating Draft Joint Concept for GIG NetOps, 15 February 2005

Decomposition Levels for Verification Board Review

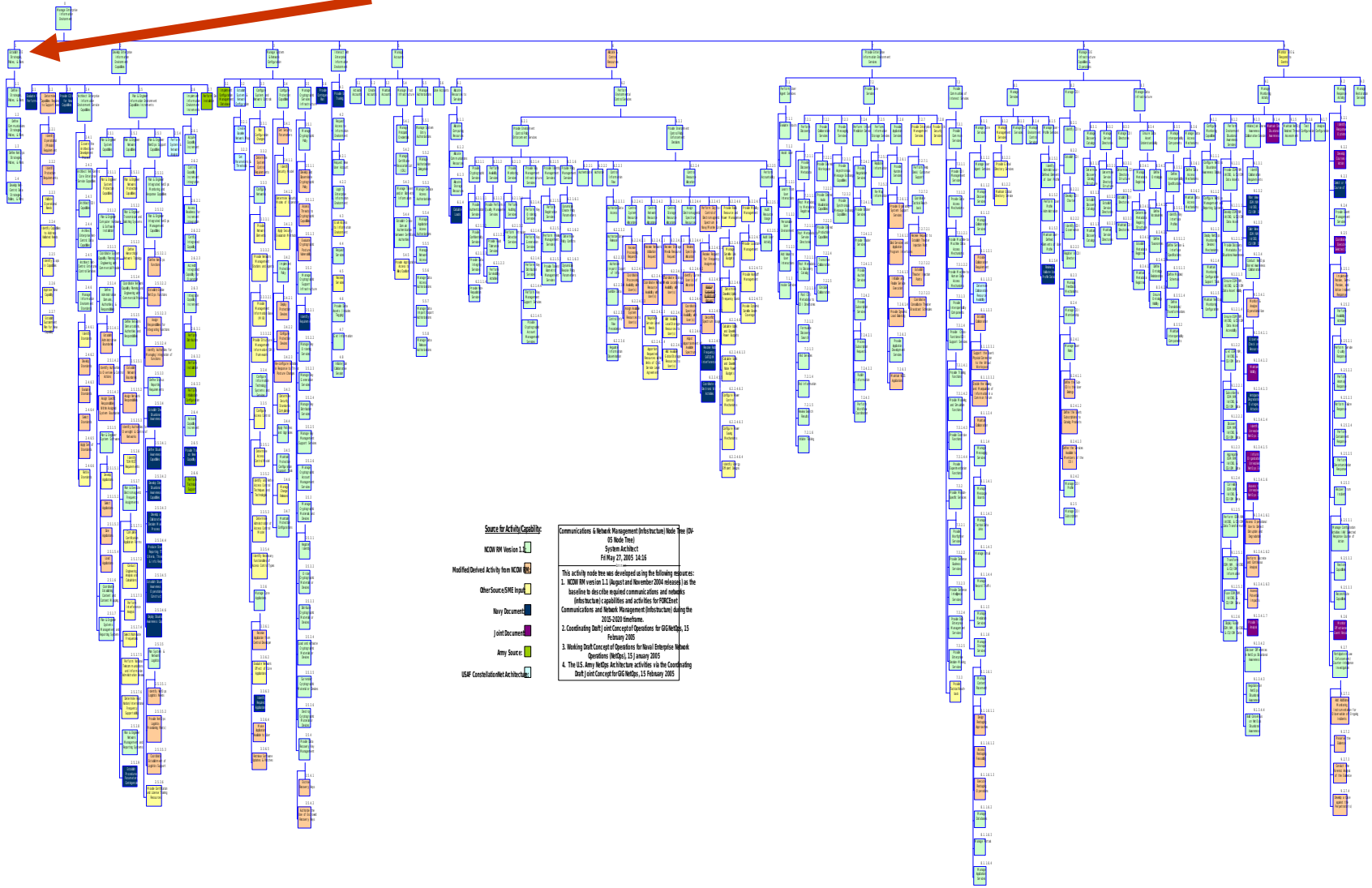
C&N/I OV-5 Decomposition



EIE: Enterprise Information Environment

C&N/I
OV-5 Activity Hierarchy

Establish Policies


Source for Activity/Capability:
NCOW RM Version 1.1
Modified/Derived Activity from NCOW RM
Other Source/SME Input
Navy Document
Joint Document
Army Source
USAF ConstellationNet Architecture
Communications & Network Management (Infrastructure) Node Tree (OV-05 Node Tree)
System Architect
Fri May 27, 2005 14:16
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1. NCOW RM version 1.1 (August and November 2004 releases) as the baseline to describe required communications and networks (infrastructure) capabilities and activities for FORCEnet Communications and Network Management (Infrastructure) during the 2015-2020 timeframe.
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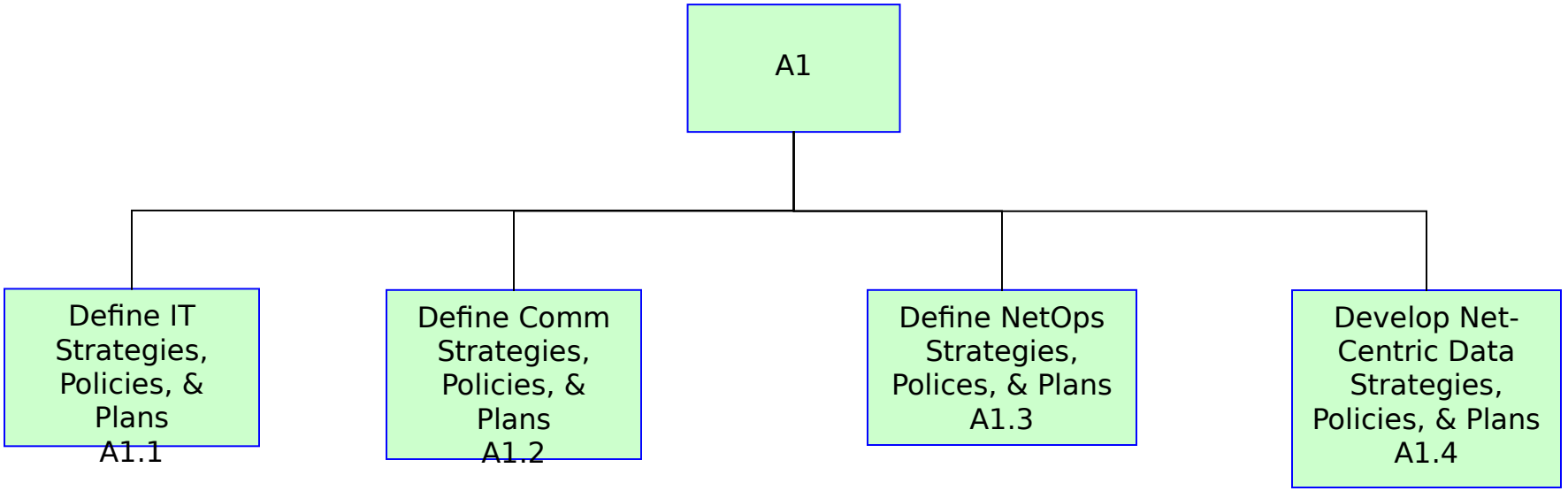
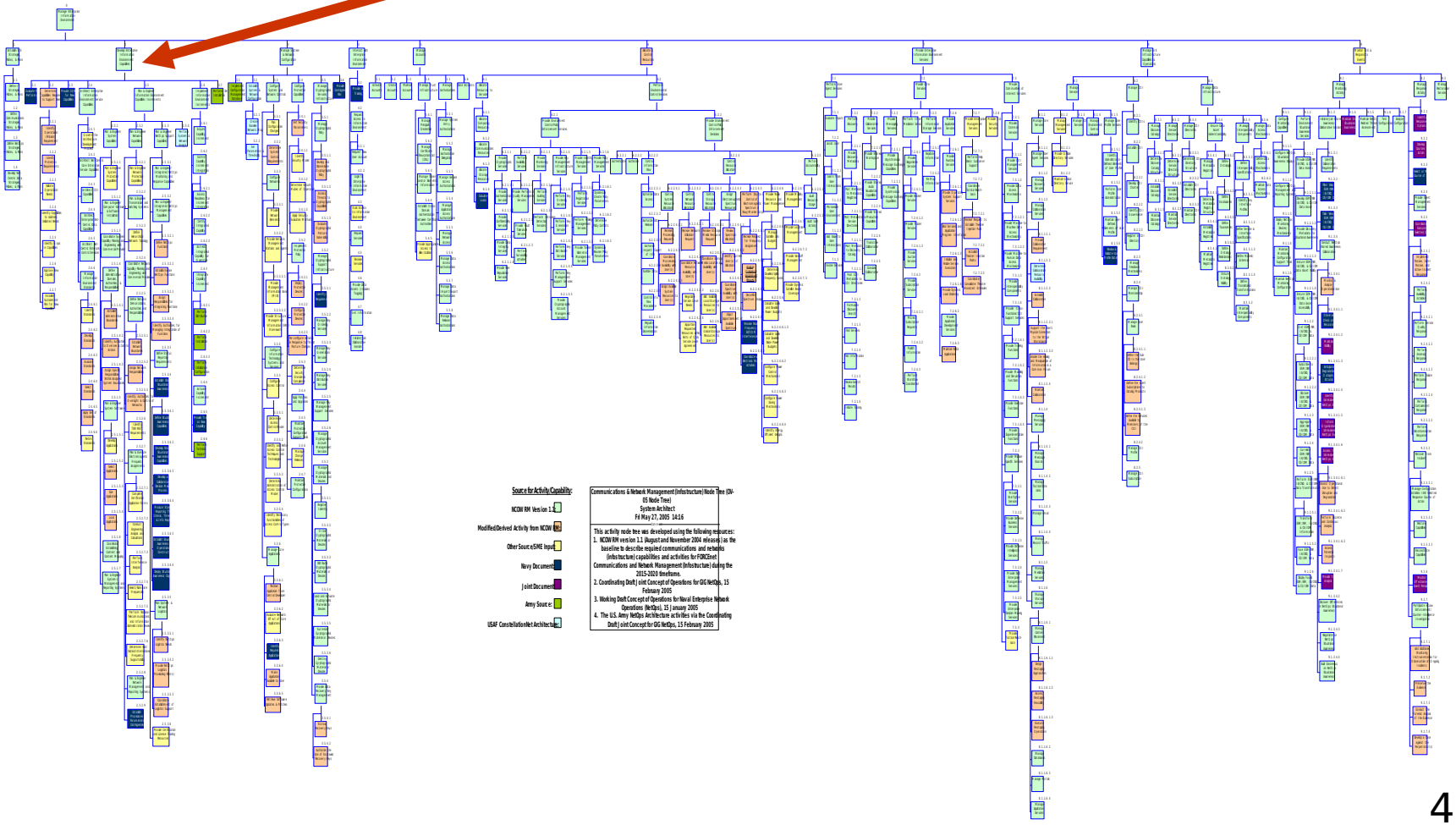
3. Working Draft Concept of Operations for Naval Enterprise Network Operations (NetOps), 15 January 2005
4. The U.S. Army NetOps Architecture activities via the Coordinating Draft Joint Concept for GIG NetOps, 15 February 2005

C&N/I Activity A1 "Establish EIE Strategies, Policies, & Plans"

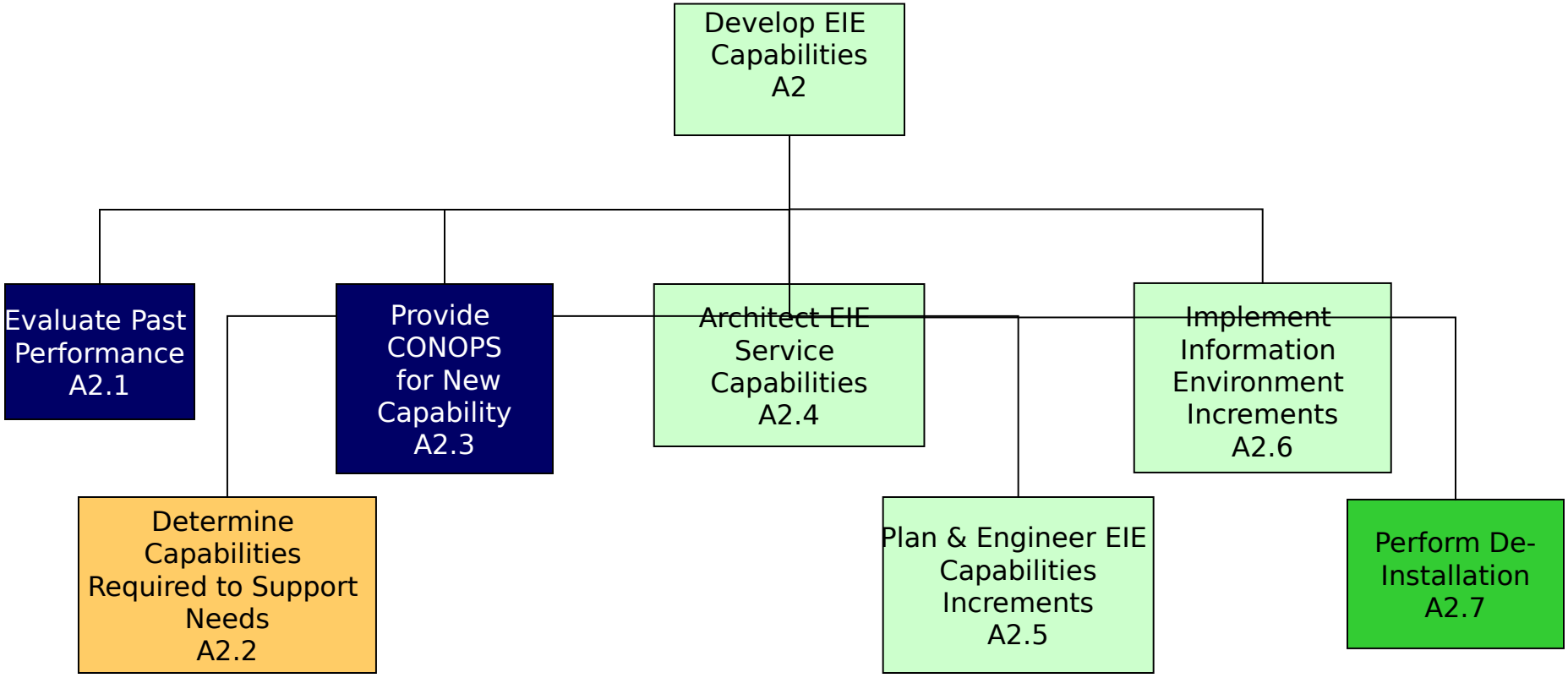

A1
Define IT Strategies, Policies, & Plans A1.1
Define Comm Strategies, Policies, & Plans A1.2
Define NetOps Strategies, Polices, & Plans A1.3
Develop Net-Centric Data Strategies, Policies, & Plans A1.4

C&N/I
OV-5 Activity Hierarchy

Develop EIE Capabilities


Source for Activity/Capability:
NCOW RM Version 1.1
Modified/Derived Activity from NCOW RM
Other Source eSME Input
Navy Document
Joint Document
Army Source:
USAF ConstellationNet Architecture
Communications & Network Management (Infostructure) Node Tree (OV-05 Node Tree)
System Architect
Fri May 27, 2005 14:16
This activity node tree was developed using the following resources:
1. NCOW RM version 1.1 (August and November 2004 releases) as the baseline to describe required communications and networks (infostructure) capabilities and activities for FORCEnet Communications and Network Management (Infostructure) during the 2015-2020 timeframe.
2. Coordinating Draft Joint Concept of Operations for GIG NetOps, 15 February 2005
3. Working Draft Concept of Operations for Naval Enterprise Network Operations (NetOps), 15 January 2005
4. The U.S. Army NetOps Architecture activities via the Coordinating Draft Joint Concept for GIG NetOps, 15 February 2005

C&N/I A2 "Develop EIE Capabilities"

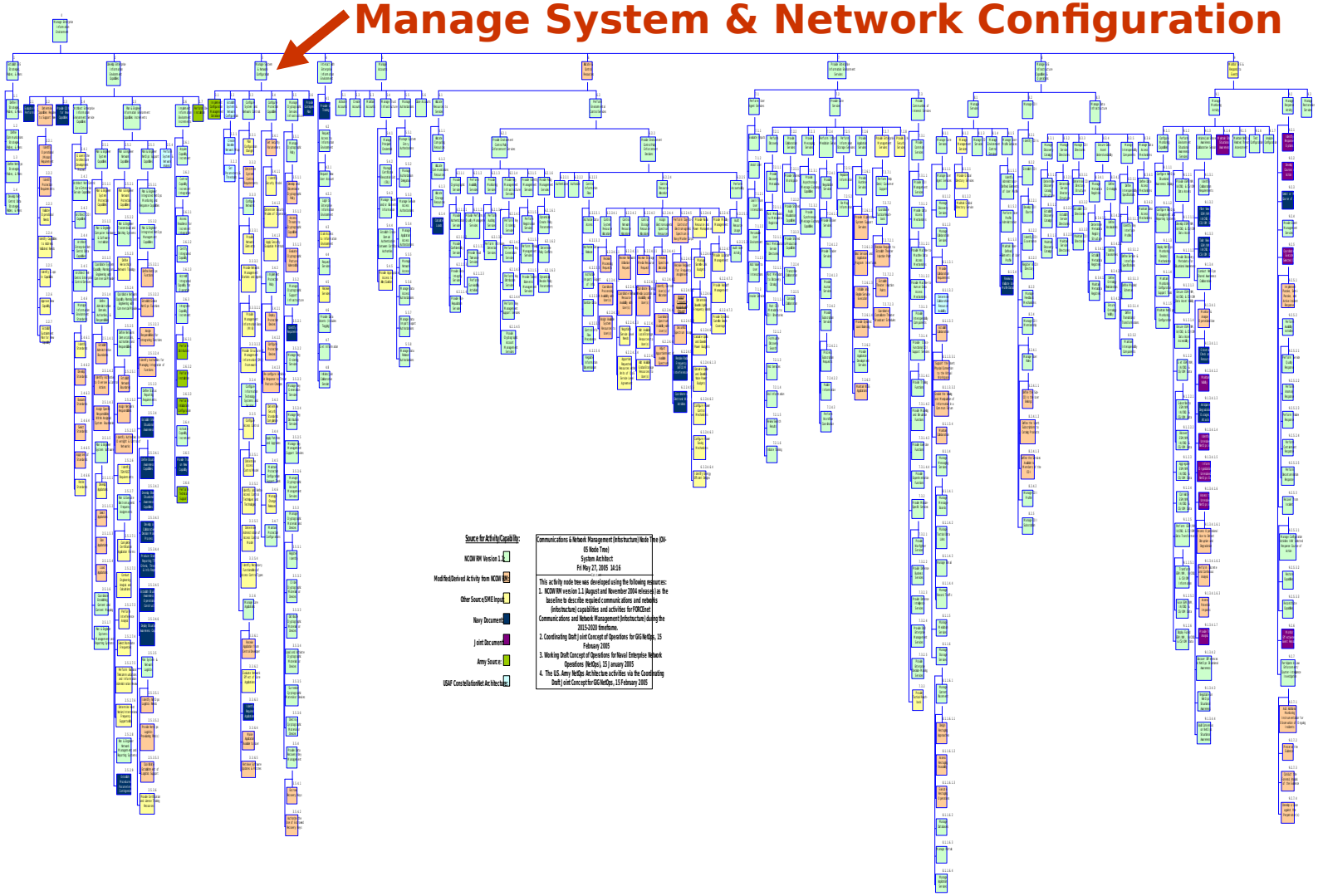

Develop EIE Capabilities A2
Evaluate Past Performance A2.1
Provide CONOPS for New Capability A2.3
Architect EIE Service Capabilities A2.4
Implement Information Environment Increments A2.6
Determine Capabilities Required to Support Needs A2.2
Plan & Engineer EIE Capabilities Increments A2.5
Perform De-Installation A2.7

Addresses:

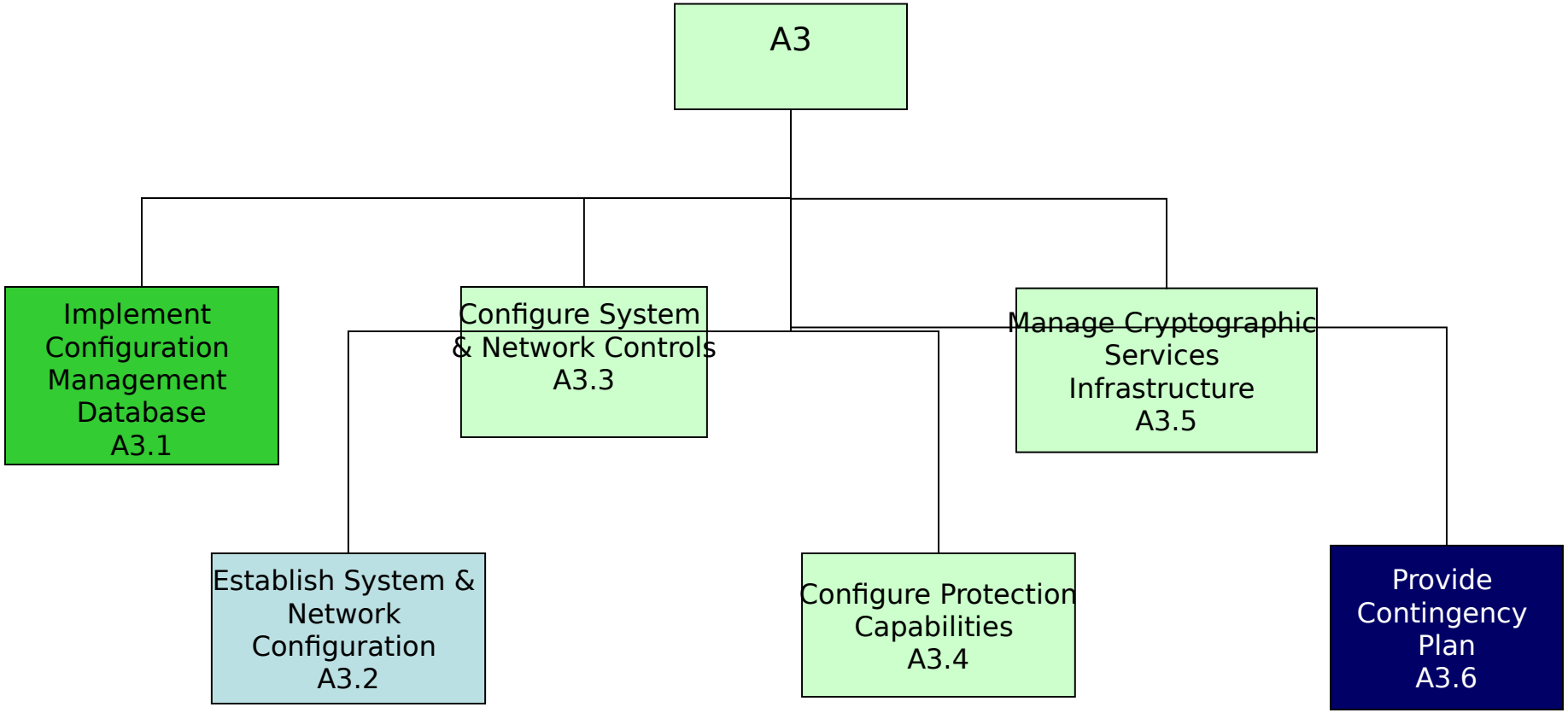
- **Capabilities determination, approval, and implementation of sustainment plans**
- **CONOPS development**
- **Building/updating DoDAF architecture**

C&N/I
OV-5 Activity Hierarchy

Manage System & Network Configuration

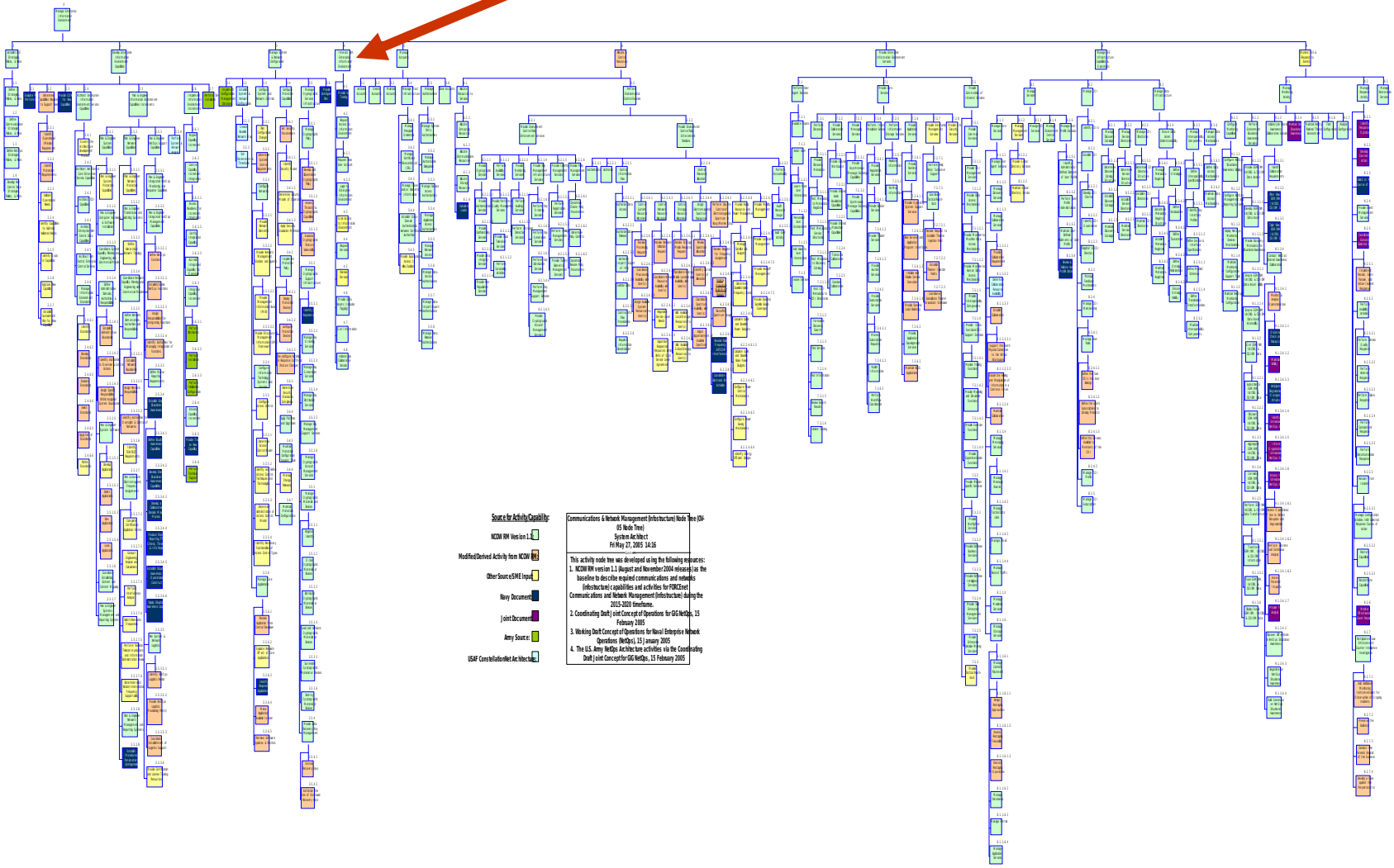


C&N/I A3 “Manage System & Network Configuration”


A3
Implement Configuration Management Database A3.1
Configure System & Network Controls A3.3
Manage Cryptographic Services Infrastructure A3.5
Establish System & Network Configuration A3.2
Configure Protection Capabilities A3.4
Provide Contingency Plan A3.6

C&N/I
OV-5 Activity Hierarchy

Interact with EIE


Source for Activity/Capability:
NCOW RM Version 1.1
Modified/Derived Activity from NCOW RM
Other Source/SME Input
Navy Document
Joint Document
Army Source:
USAF Constellation/Net Architecture
Communications & Network Management (Infrastructure) Node Tree (OV-05 Node Tree)
System Architect
Fri May 27, 2005 14:16
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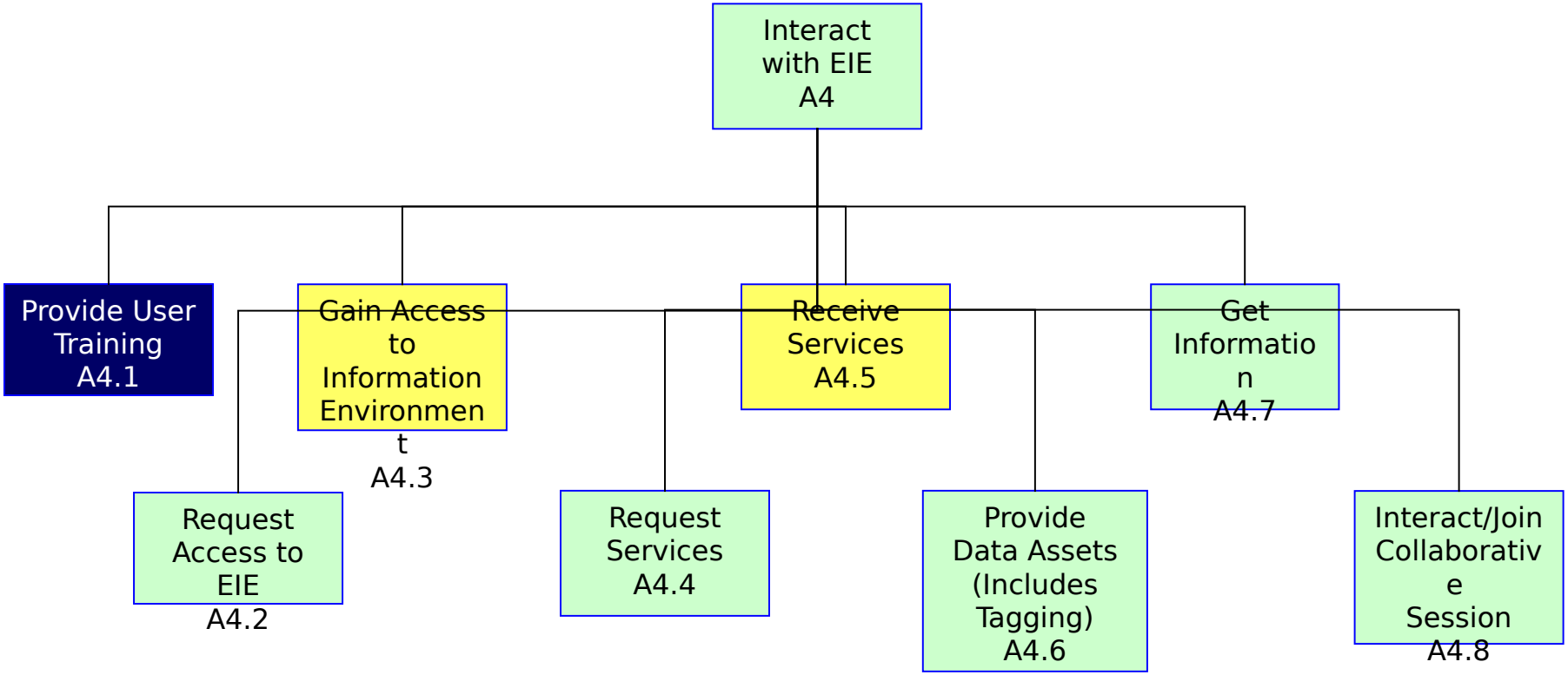
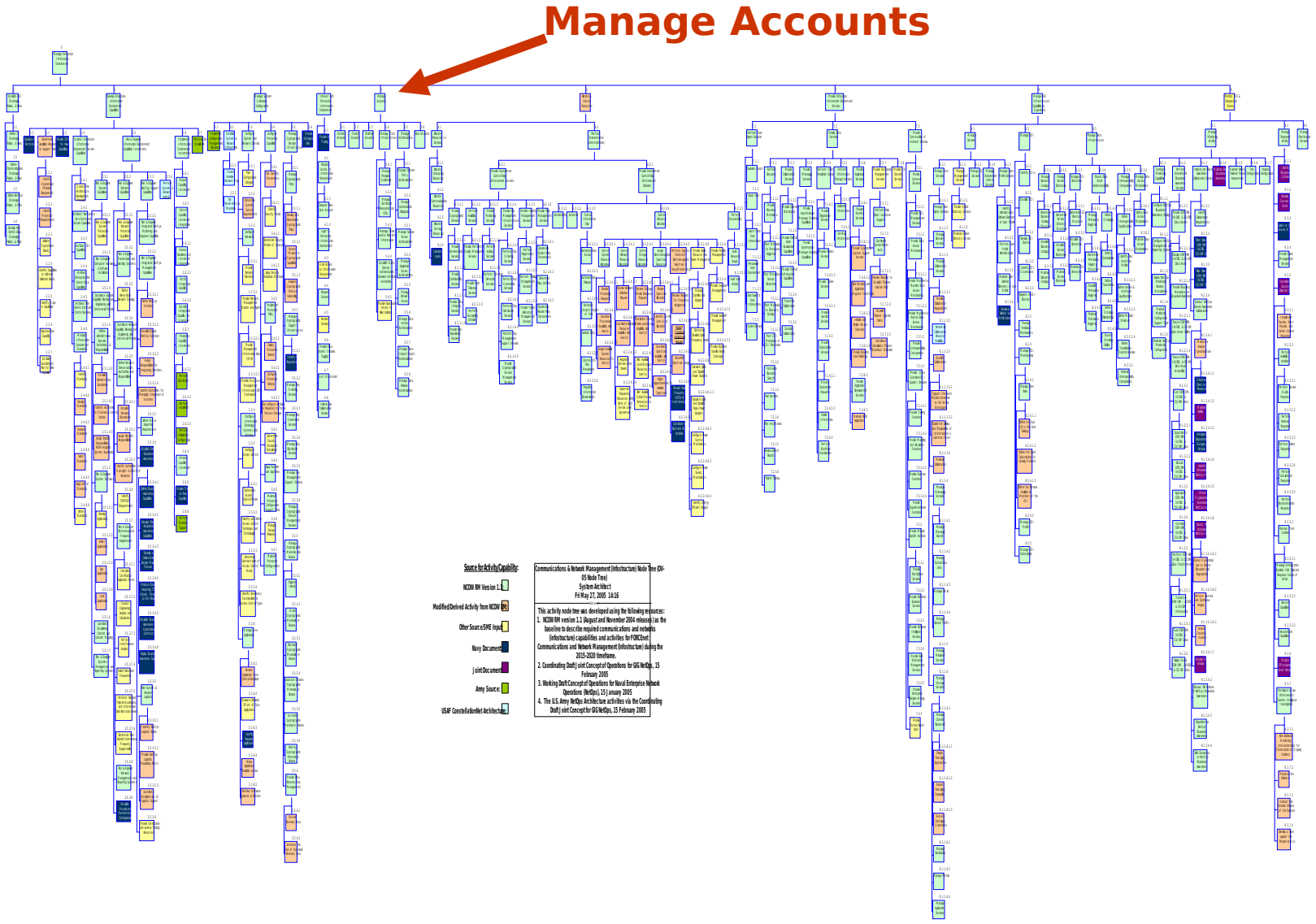
4. The U.S. Army NetOps Architecture activities via the Coordinating Draft Joint Concept for GIG NetOps, 15 February 2005

C&N/I A4
"Interact with EIE"

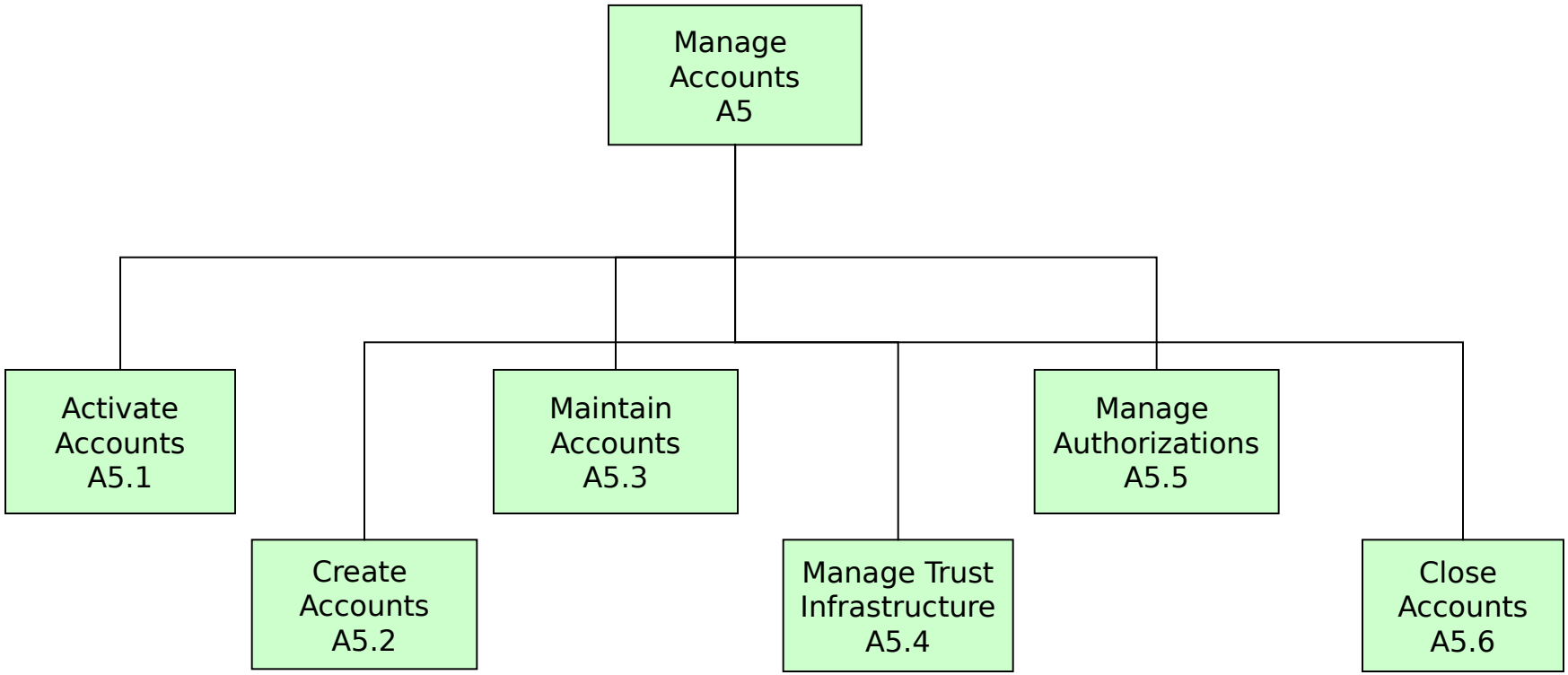

Interact with EIE A4
Provide User Training A4.1
Gain Access to Information Environment A4.3
Receive Services A4.5
Get Information A4.7
Request Access to EIE A4.2
Request Services A4.4
Provide Data Assets (Includes Tagging) A4.6
Interact/Join Collaborative Session A4.8

- Describes user interaction with Enterprise Information Environm

C&N/I
OV-5 Activity Hierarchy



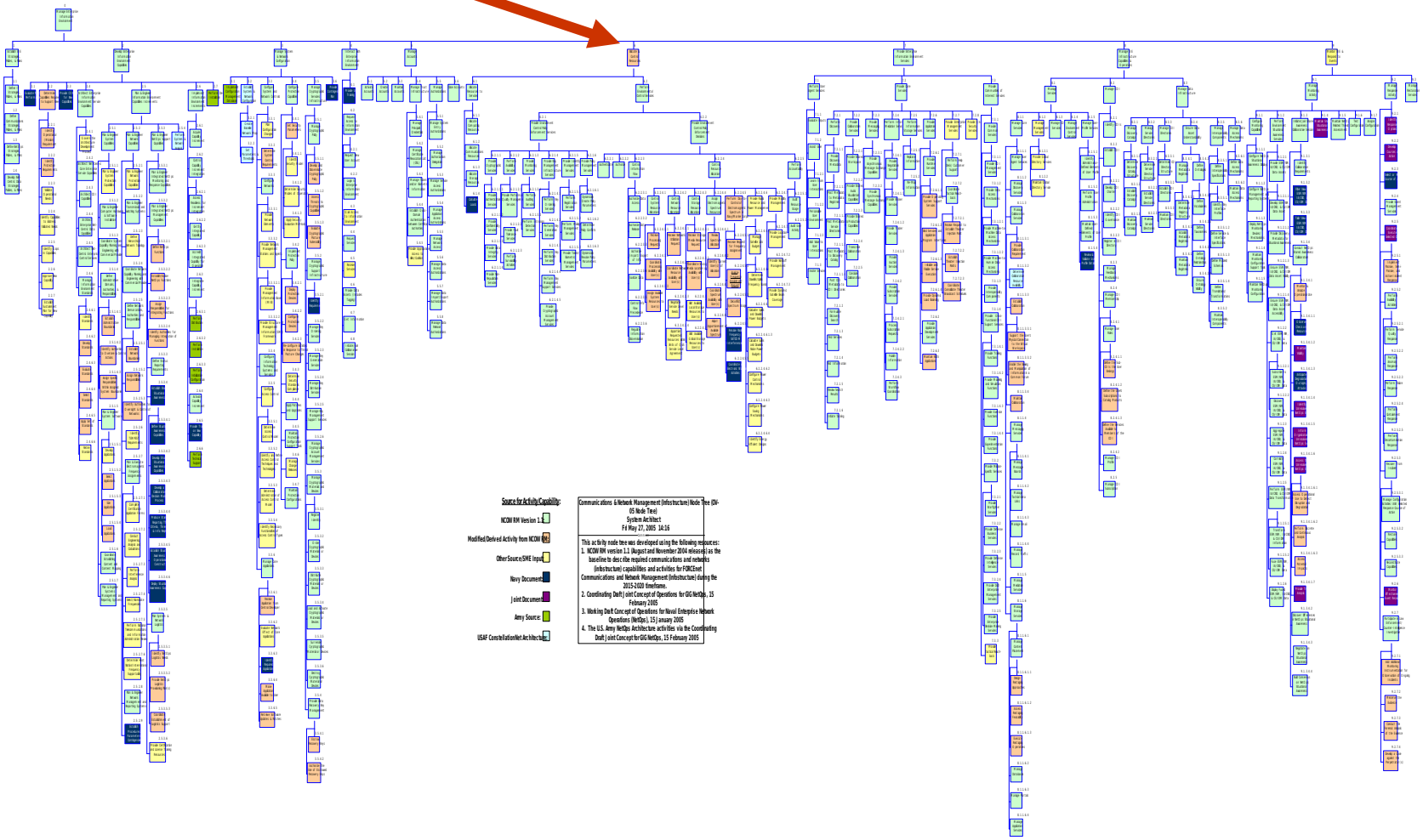
C&N/I A5 “Manage Accounts”



- Addresses credentials, Certificate Revocation List, & biometric information management

C&N/I
OV-5 Activity Hierarchy

Allocate & Control Resources


Source for Activity/Capability:
NCOW RM Version 1.1
Modified/Derived Activity from NCOW RM
Other Source/SME Input
Navy Document
Joint Document
Army Source
USAF ConstellationNet Architects
Communications & Network Management (Infrastructure) Node Tree (OV-05 Node Tree)
System Architect
Fri May 27, 2005 14:16
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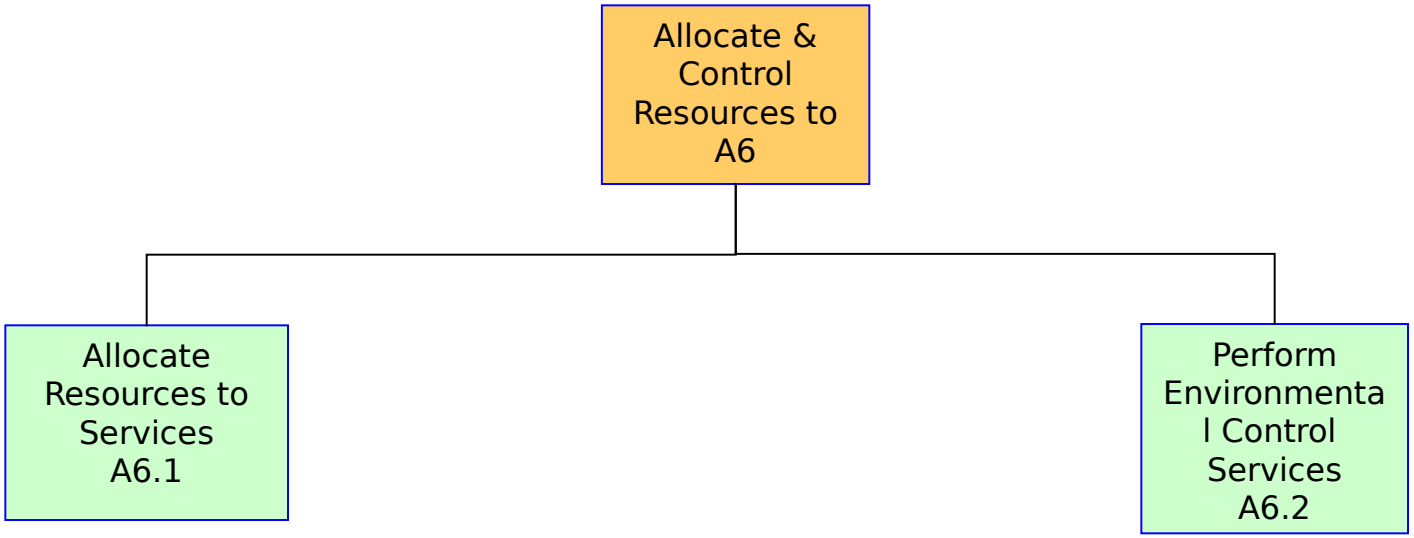
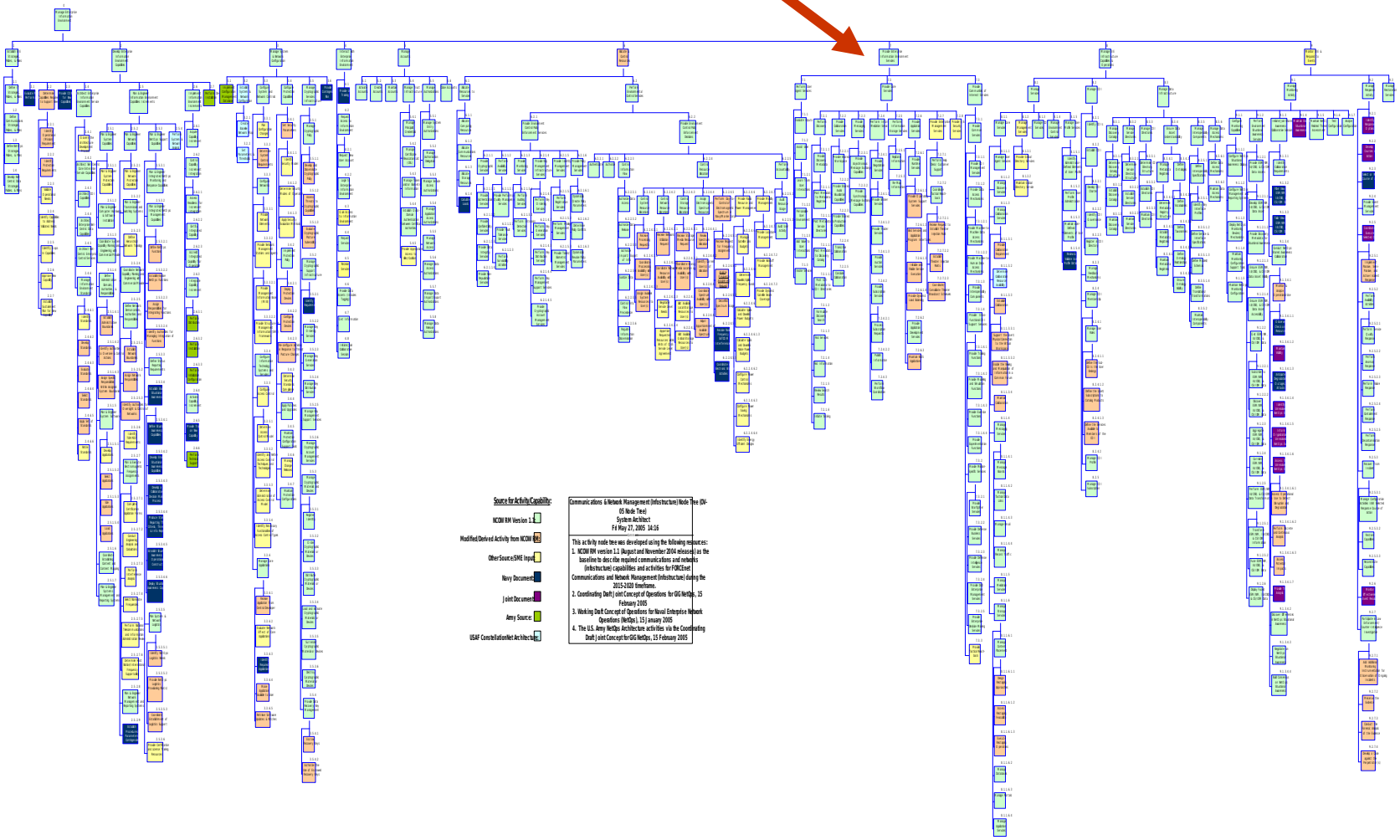
C&N/I A6
"Allocate & Control Resources"



- Addresses allocation of communications, computing, and storage resource
- Describes provision of environmental control policies and their enforceme
  - Authentication, Authorization, Information Flow Control, Resource Allocation Co

C&N/I
OV-5 Activity Hierarchy

Provide EIE Services


Source for Activity/Capability:
NCOW RM Version 1.1
Modified/Derived Activity from NCOW RM
Other Source/SME Input
Navy Document
Joint Document
Army Source
USAF ConstellationNet Architecture
Communications & Network Management (Infrastructure) Node Tree (OV-05 Node Tree)
System Architect
Fri May 27, 2005 14:16
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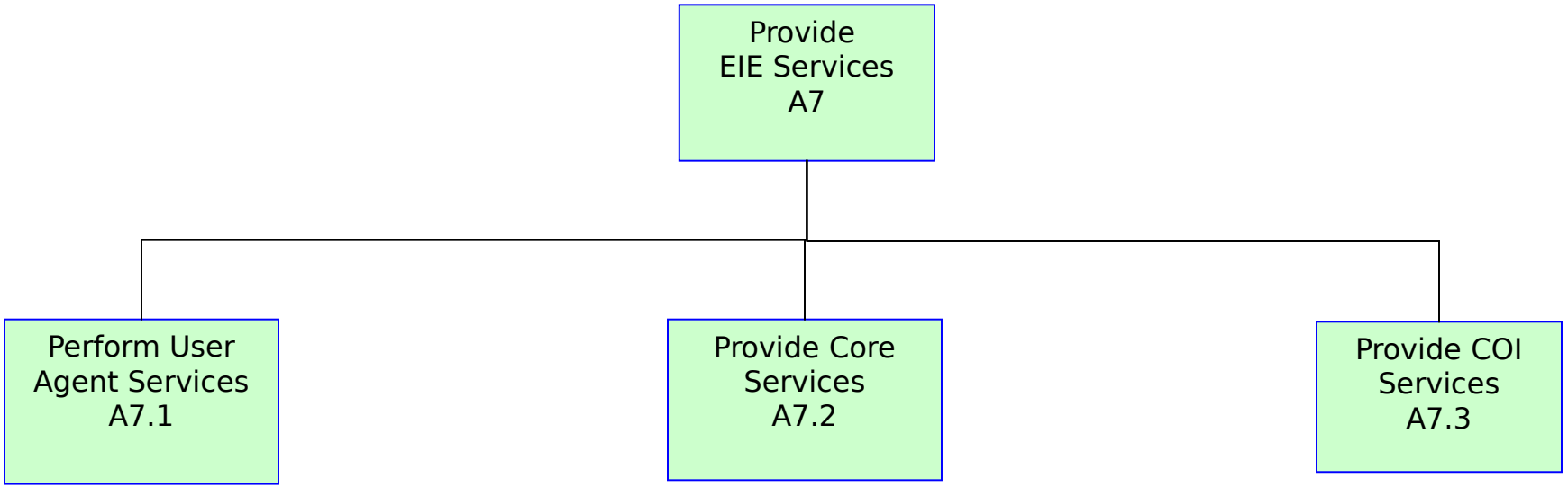
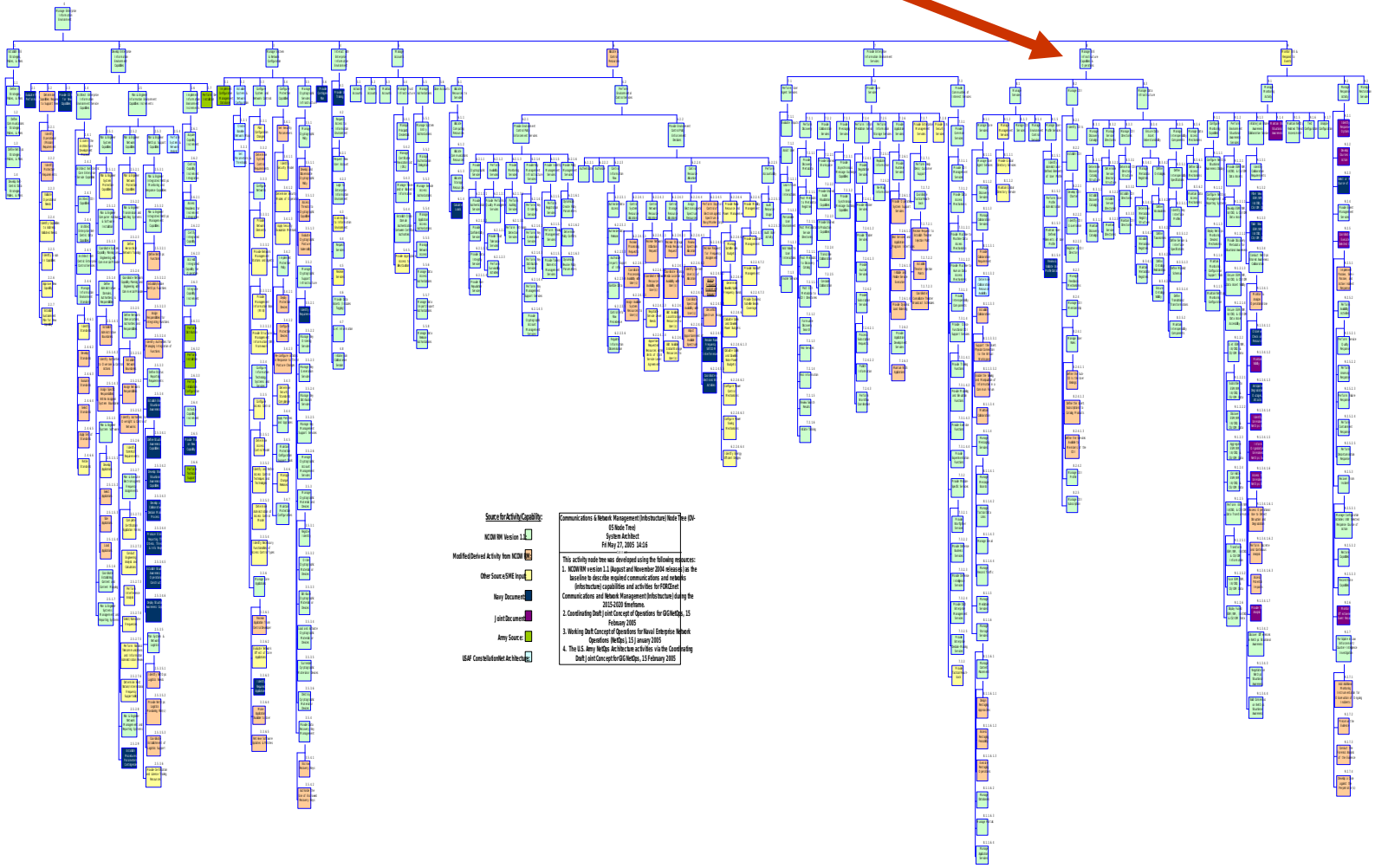
C&N/I A7
"Provide EIE Services"



- Addresses activities performed when providing variety of servic
  - Discovery, Collaboration, Messaging, Mediation, etc.
- Describes high-level COI services for warfighting, business, defense intelligence, & enterprise management domains

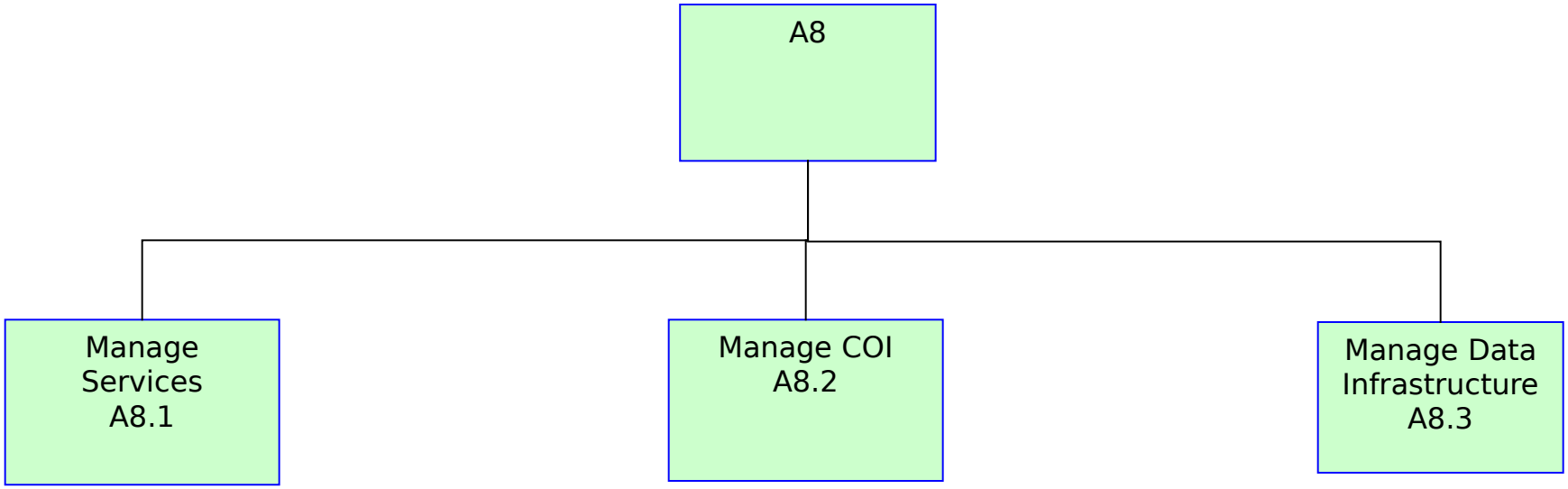
C&N/I
OV-5 Activity Hierarchy

Manage EIE Services



55

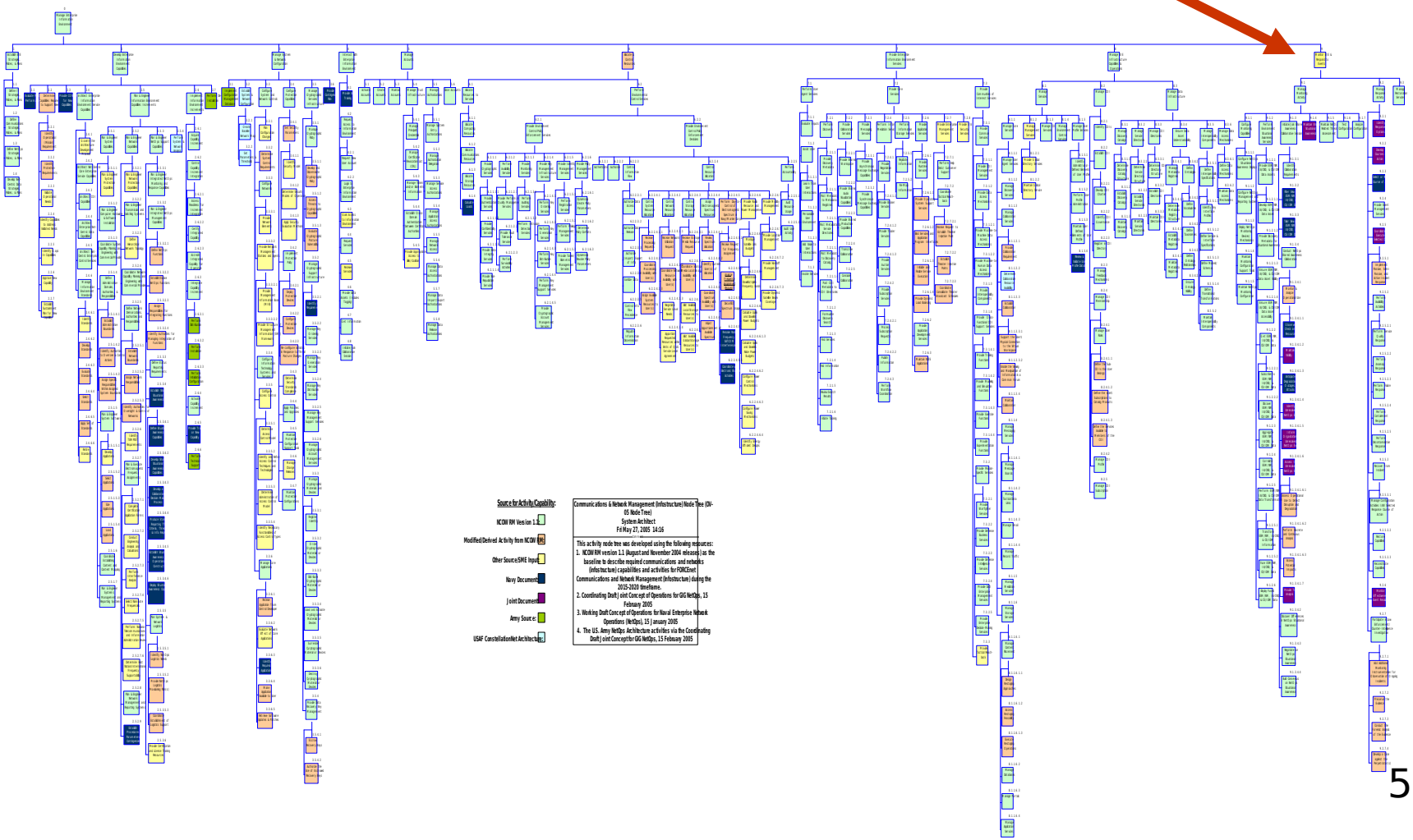
C&N/I A8
"Manage EIE Infrastructure Capabilities & Operations"



- Addresses management of core & COI services & implementation of DoD Data Strategy
- Describes activities for establishing & managing COIs

C&N/I
OV-5 Activity Hierarchy

Monitor & Respond to Events


Source for Activity/Capability:
NCOW RM Version 1.1
Modified/Derived Activity from NCOW RM
Other Source/SME Input
Navy Document
Joint Document
Army Source:
USAF CastellationNet Architecture
Communications & Network Management (Infrastructure) Node Tree (OV-5 Node Tree)
System Architect
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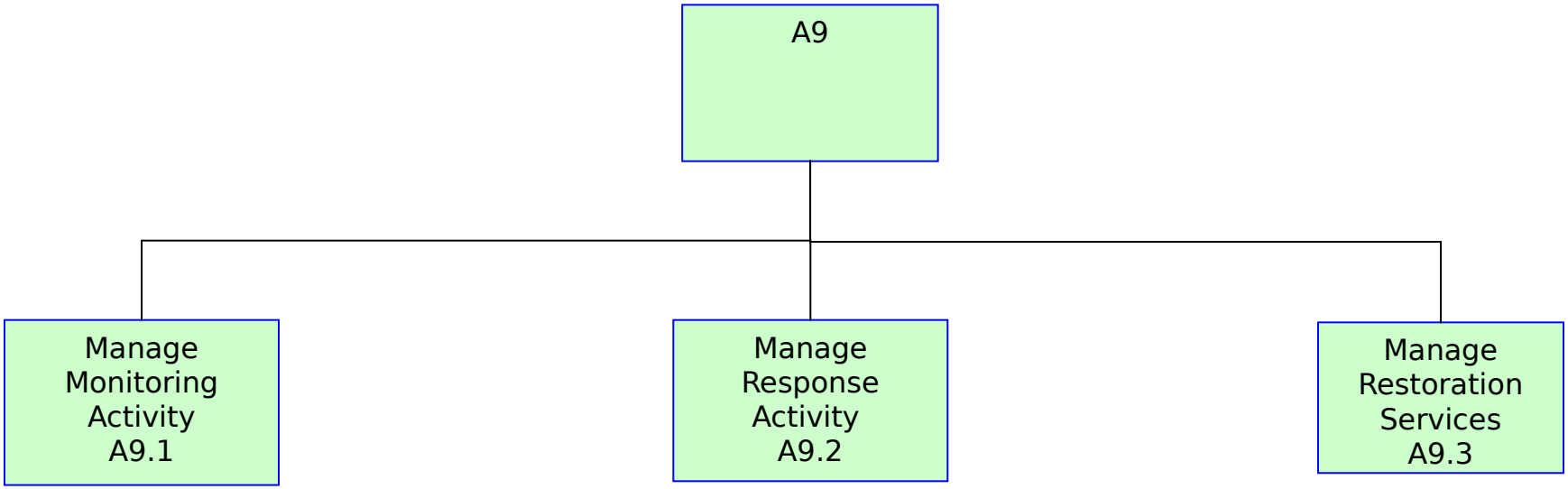
C&N/I A9 "Monitor EIE & Respond to Events"



- Includes activities derived from draft GIG NetOps & Naval Enterprise Netw CONOPS
- Incorporates activities for building shared awareness of NetOps and collaboration to resolve events (e.g., intrusion, communications outage, e

C&N/I OV-5 Node Tree Way Ahead

- Update Activity Hierarchy diagram with SME concurrence based on:
  - C&N/I OV-5 Activity Model as it continues to evolve
  - OV-6 Mission Thread development
  - Updated concept papers

C&N/I Architecture Recommendation

- Approve briefed diagrams as version 1.0, and place under configuration management:
  - Top level OV-2 and OV-4 diagrams
  - OV-5 Activity Hierarchy Diagram decompositions

C2/Decision Support Architecture

- CDR O'Sullivan Lead NNWC SME
- OV Product Development Summary:
  - Two reviews completed at NNWC
    - 20 April and 24 May
      - Representatives from NNWC and C2F attended 24 May review
  - Focused on OV-5 Activity Hierarchy and high level OV-2, OV-4, & Activity Model diagrams
  - OV-5 Activity Hierarchy incorporates activities from multiple sources (listed on next slide)
  - OV-2 and OV-4 diagrams based on JFMCC TACMEMO 3-32-03

C2/DS Architecture References

To-Be C2/Decision Support Node Tree (OV-05 Node Tree)
System Architect
Mon May 09, 2005 13:02

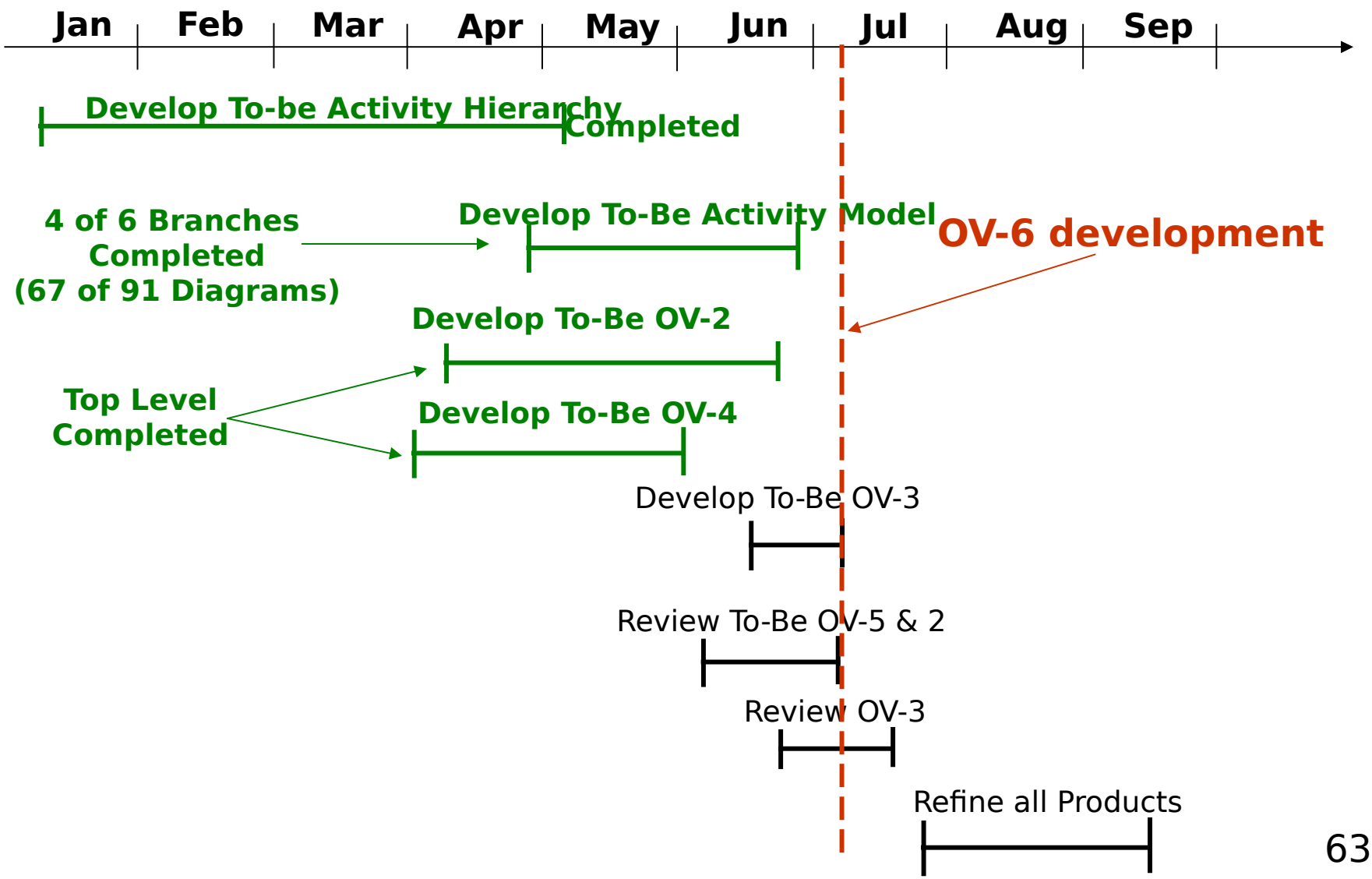
Comment

Working draft of the To-be (2015-2020) Command and Control/Decision Support OV-5 Node Tree. Capabilities and activities were derived from the following sources:

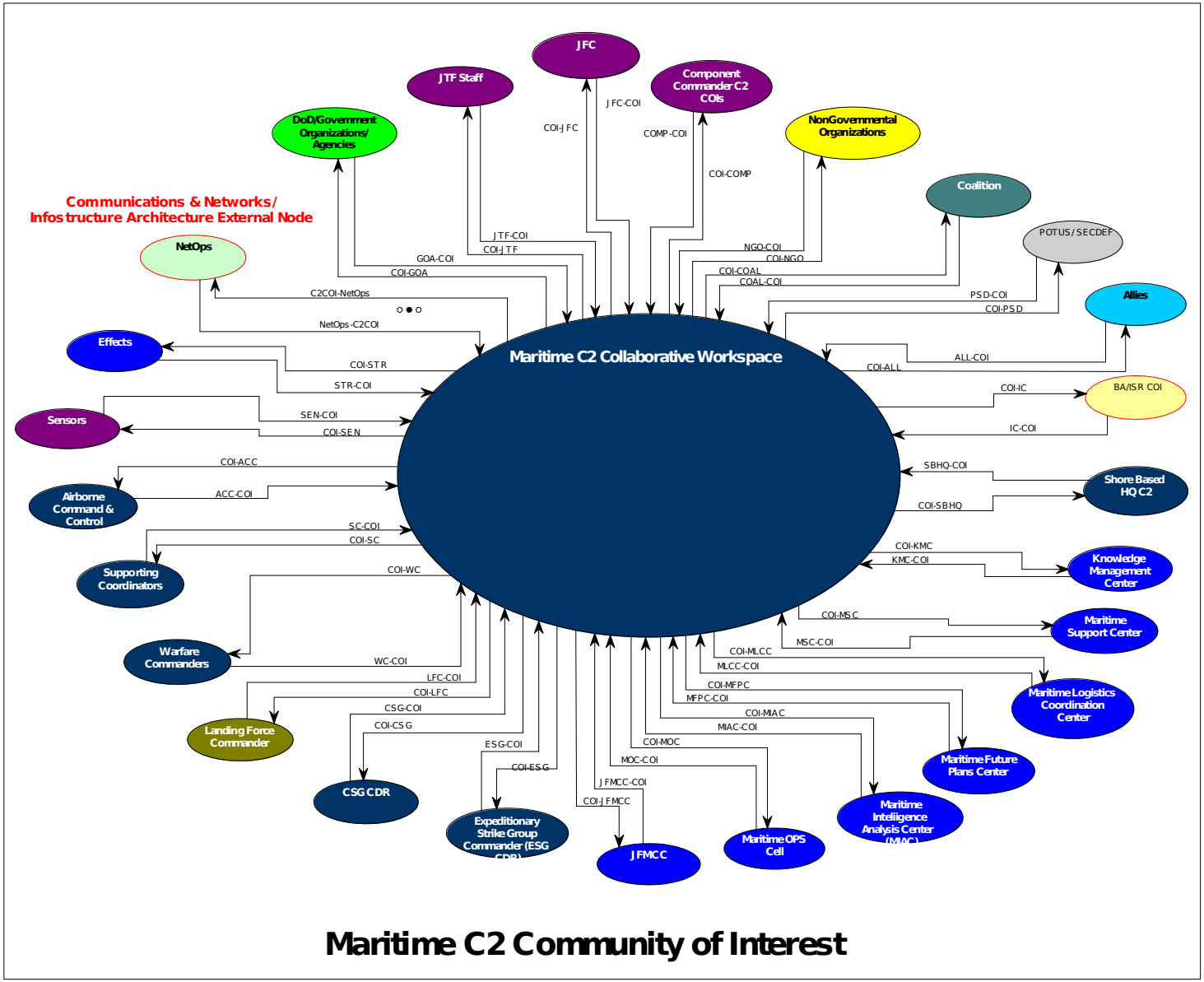
1. FORCEnet Functional Concept
2. Joint Command and Control Functional Concept, version 1.0
3. Joint Command and Control CDD, version 2.2, dated 2 August 2004
4. Net Centric Environment Functional Concept, version 0.9, dated 8 November 2004
5. Network Centric Operations and Warfare Reference Model, version 1.1, November 2004
6. Net Centric Operations Conceptual Framework, version 1.0, dated November 2003
7. Joint Force Maritime Component Commander (JFMCC) TACMEMO 3-32-03
8. Functional Concept for Battlespace Awareness, version 2.1, dated 31 December 2003
9. Command and Control Joint Integrating Concept, Draft version 0.7, 31 March 2005 1800
10. Joint Pub 5-00.2
11. Joint Pub 2-01.3

Also incorporated appropriate activities from EMW Architecture and UNTL

Command and Control/ Decision Support Schedule



C2/DS Maritime C2 COI OV-2



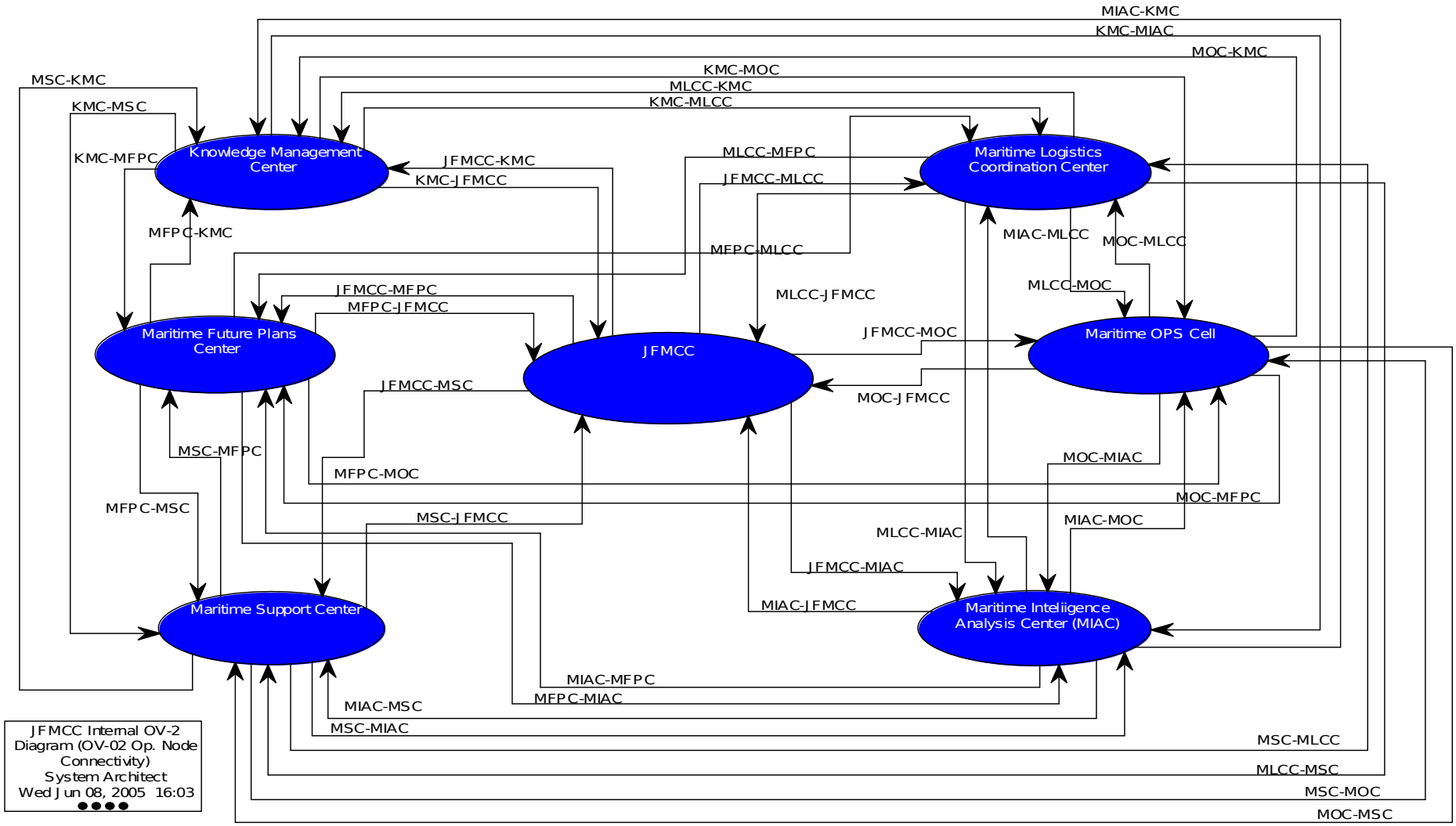
Maritime C2 Community of Interest

Maritime C2 Community of Interest (COI)
(OV-02 Op. Node Connectivity)
System Architect
Wed Jun 08, 2005 15:59

Comment

This OV-2 is the top level diagram that shows a number of participants in a Maritime C2 Community of Interest. This drawing assumes that an institutional, cross-functional COI has been established to facilitate the conduct of maritime command and control and provide a mechanism for storing and sharing information and or data with other components and participants via a collaborative workspace in a joint warfighting environment.

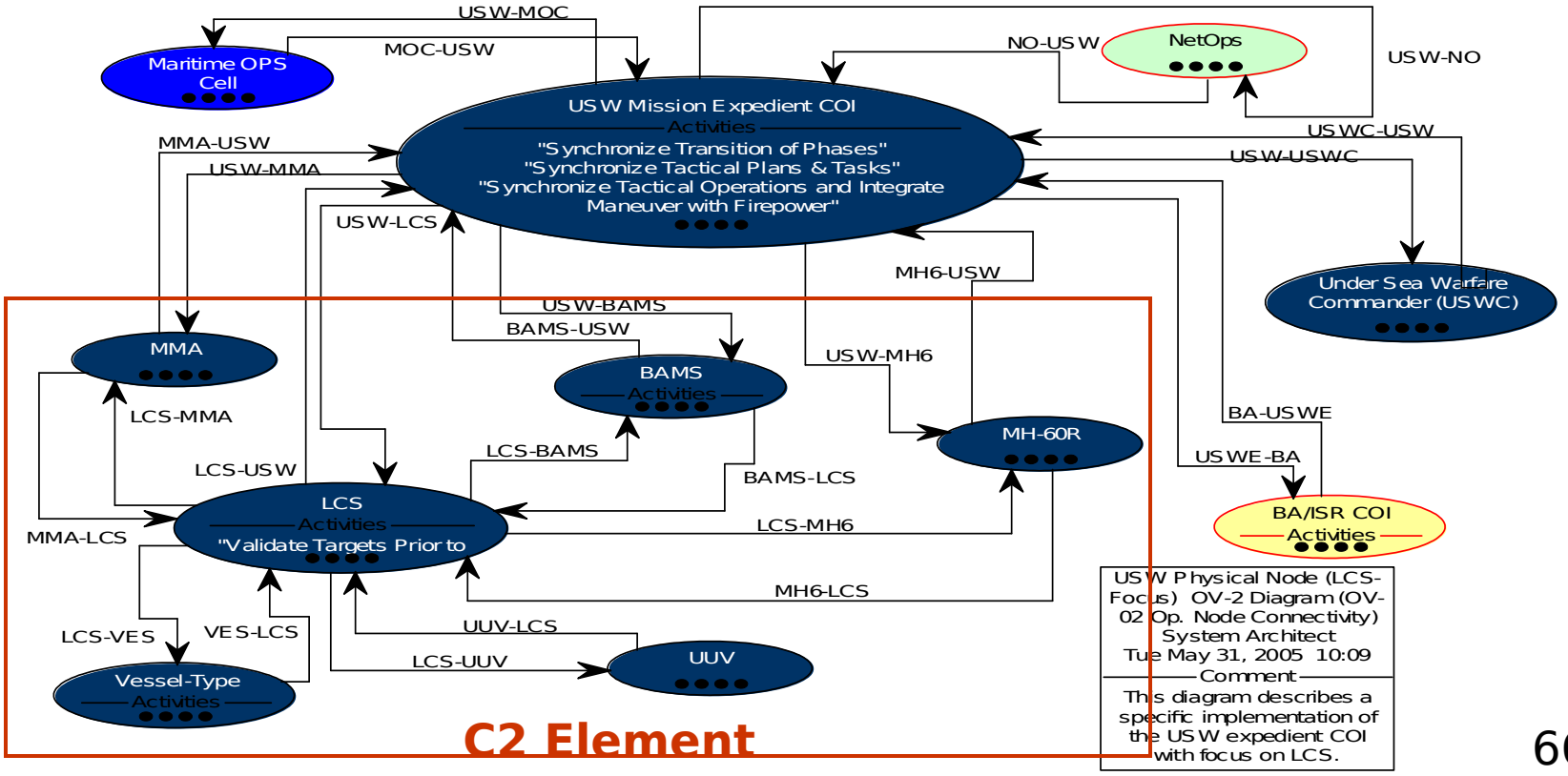
C2/DS Internal JFMCC OV-2



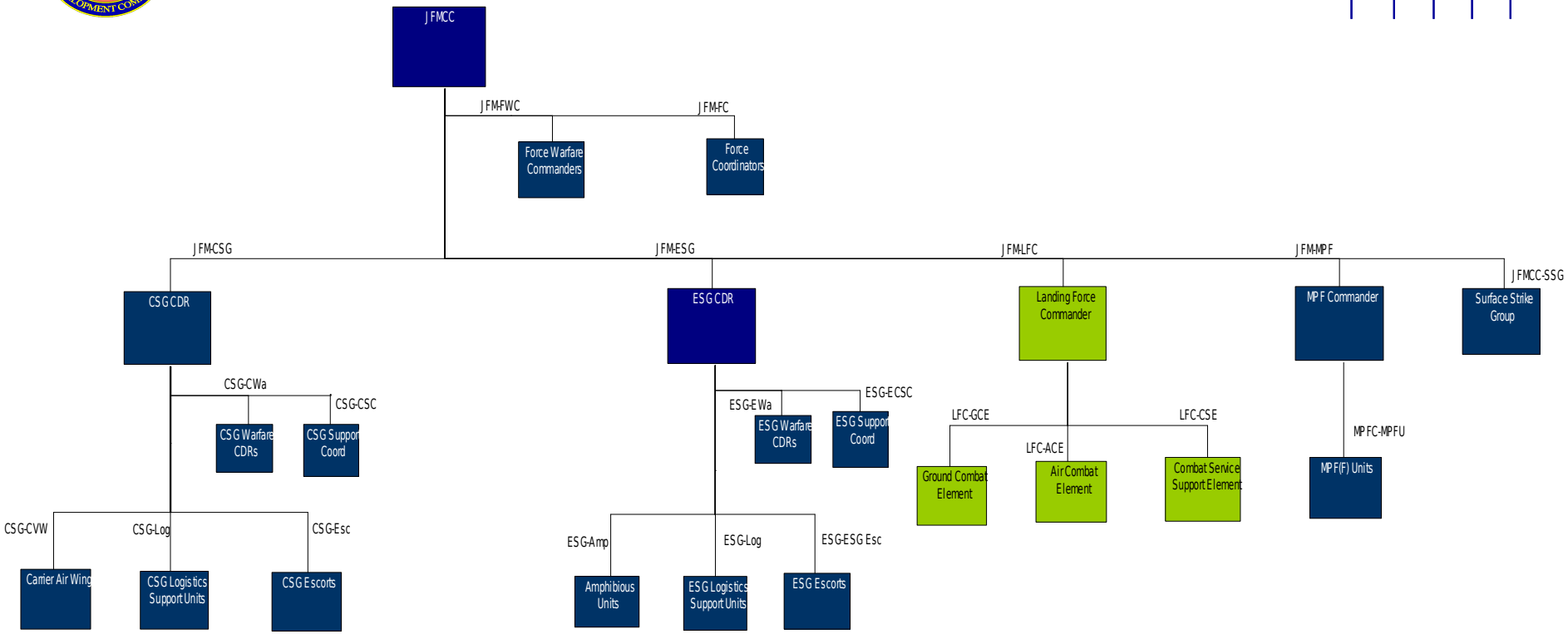
JFMCC Internal OV-2
Diagram (OV-02 Op. Node Connectivity)
System Architect
Wed Jun 08, 2005 16:03

C2/DS OV-2 Product Way Ahead

- Develop diagrams based on an operational context/mission thread to support transition to SV-1s similar to **sample diagram** below:



C2/DS OV- 4 Top Level



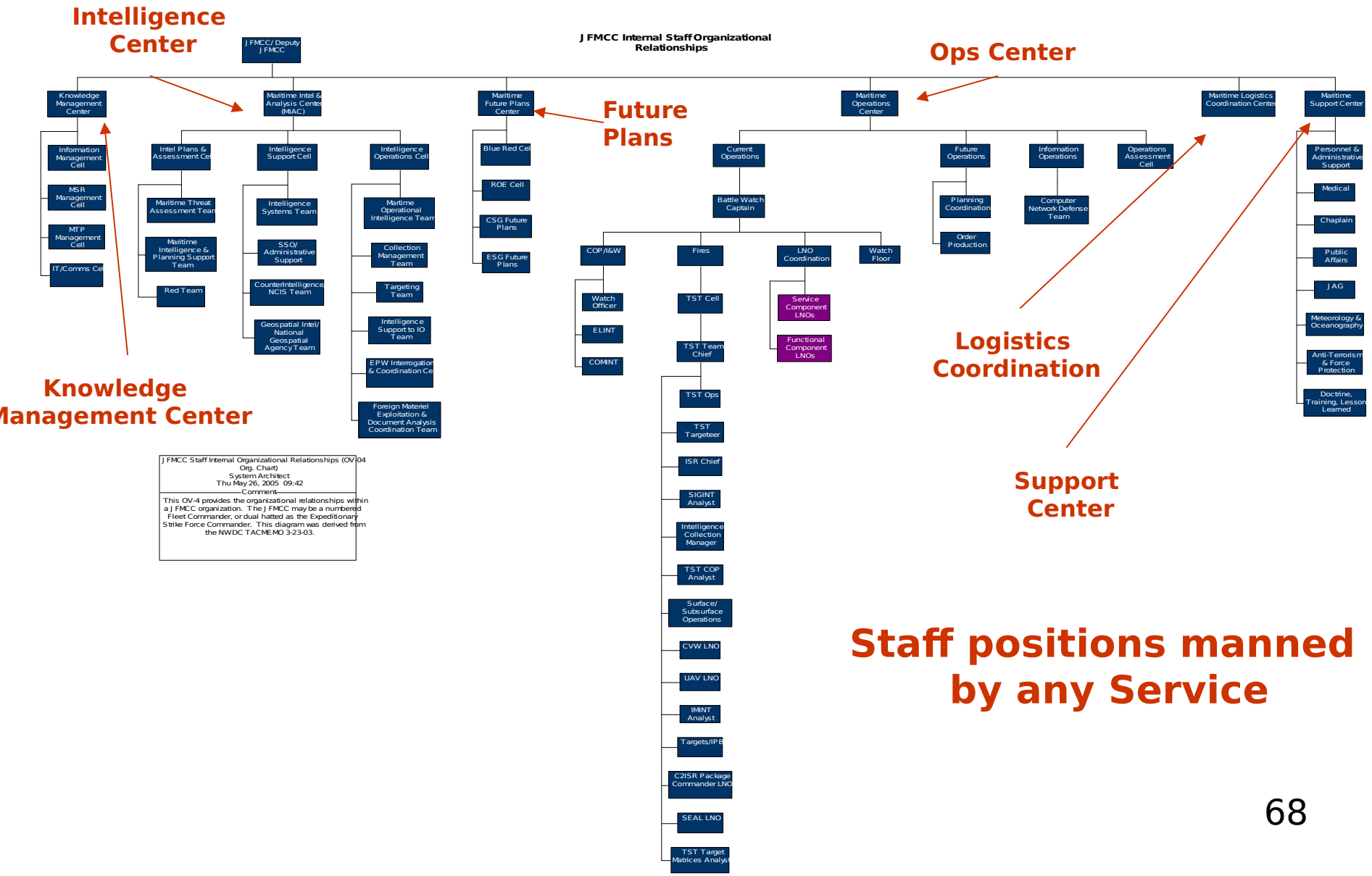
Maritime Component Organizational Relationships (OV-04 Org. Chart)
System Architect
Thu May 26, 2005 09:40

Comment

This is an OV-4 Organizational Relationship Diagram for the Maritime Component. It assumes that the JFMCC position has been assigned to a Fleet Commander (C2F, C3F, C5F, or C7F) or a Marine Expeditionary Force (MEF) Commander as stated in the JFMCC TACMEMO 3-32-03, page EX-2 "Usually commanded by a numbered fleet commander or Marine Expeditionary Force commander, the JFMCC staff is organized to collaborate vertically with the Joint Force Commander and subordinate commanders, as well as horizontally with other Component Commanders." This diagram assumes that the JFMCC has been dual hatted as the Expeditionary Strike Force (ESF) commander, OTC, and CWC. The ESF consists of a Carrier Strike Group (CSG), Expeditionary Strike Group with Marine Air Ground Task Force (MAGTF) embarked, prepositioning forces and a surface strike group (SSG).

Relationships External to JFMCC/Staff

Internal JFMCC Staff OV-4 Diagram



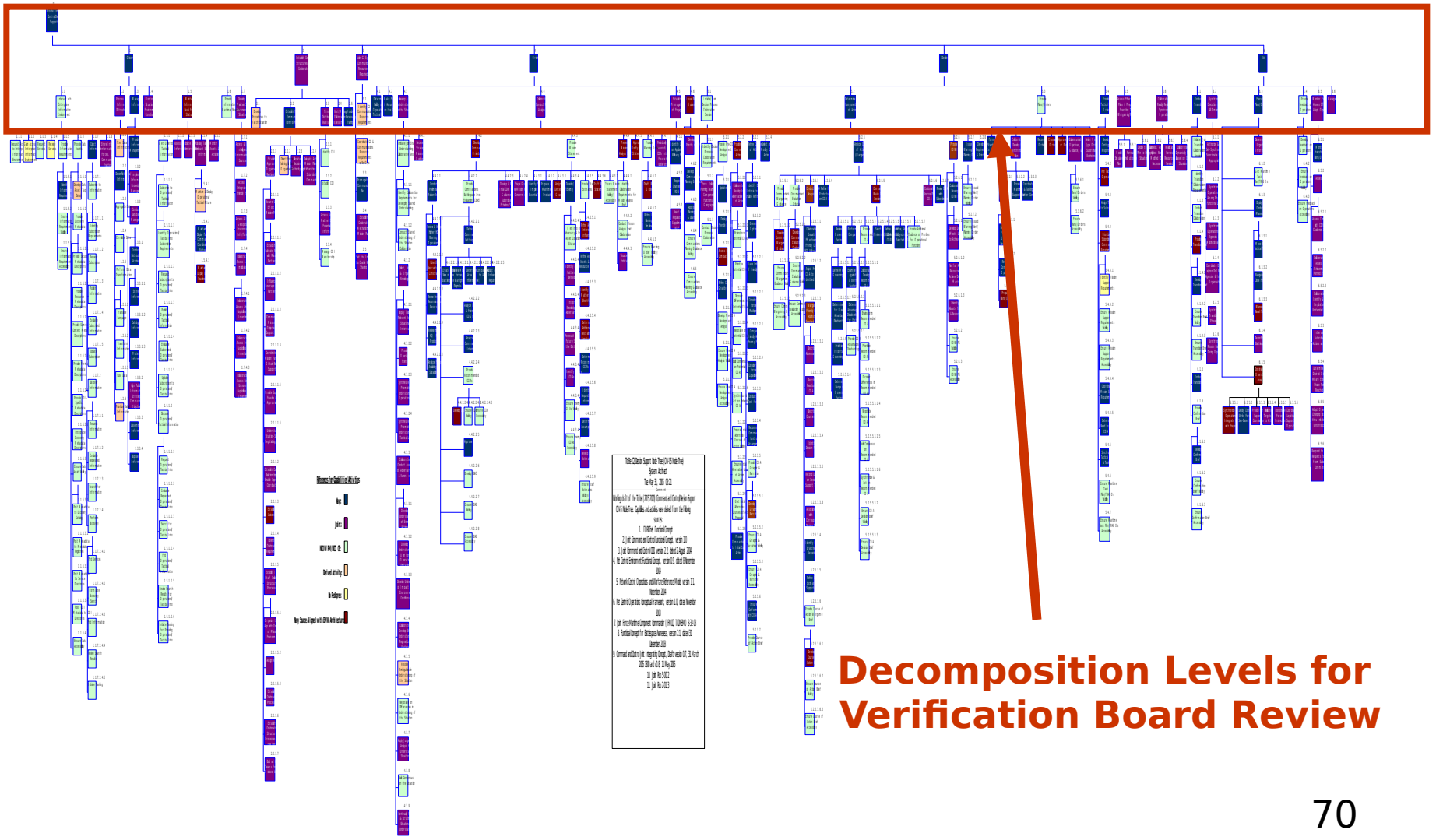
J FMCC Staff Internal Organizational Relationships (OV-04 Org. Chart)
System Architect
Thu May 26, 2005 09:42
——— Comment———
This OV-4 provides the organizational relationships within a J FMCC organization. The J FMCC may be a numbered Fleet Commander, or dual hatted as the Expeditionary Strike Force Commander. This diagram was derived from the NWDC TACMEMO 3-23-03.

Staff positions manned by any Service

C2/DS OV-4 Way Ahead

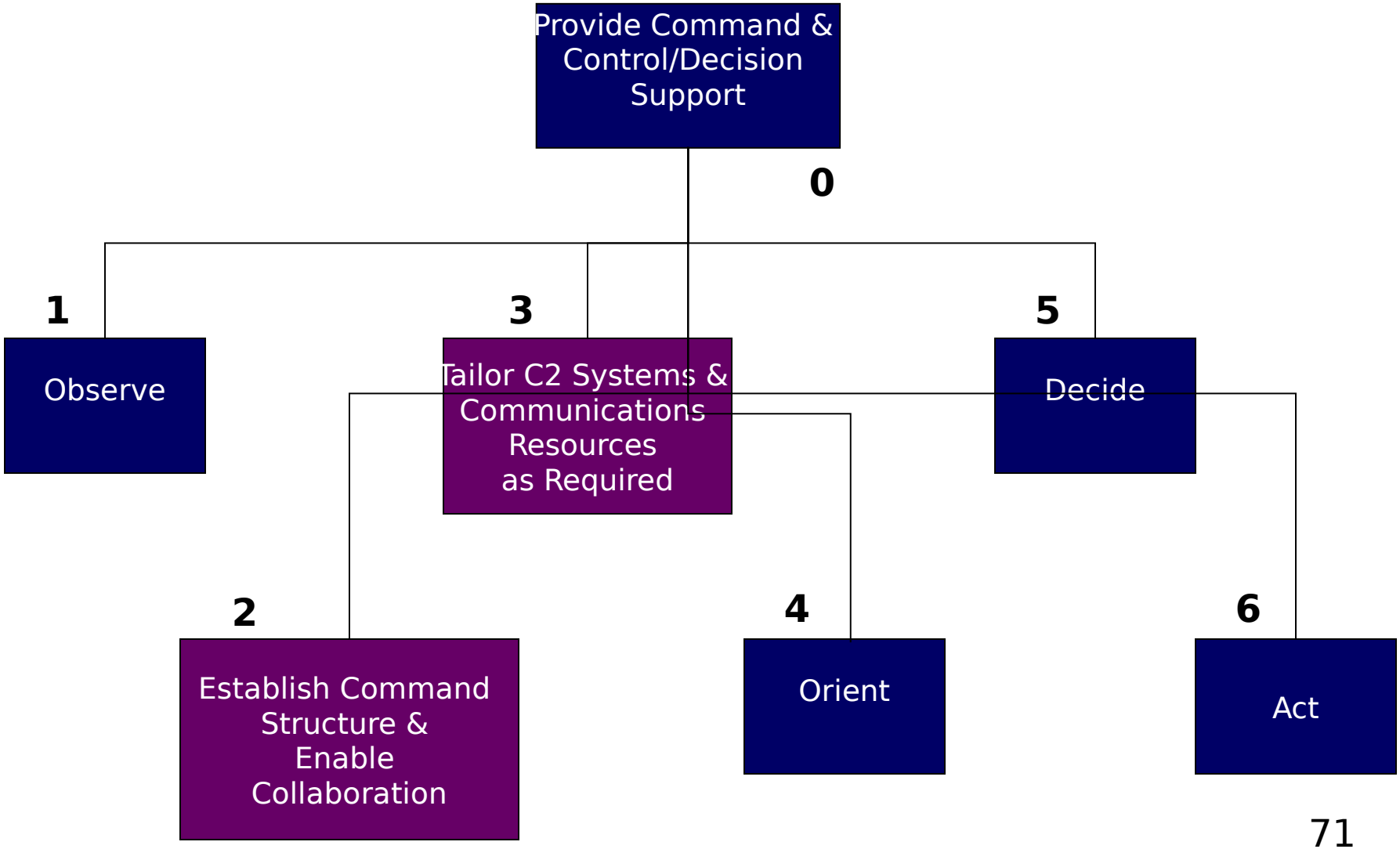
- Build additional diagrams based on operational context/mission thread in conjunction with OV-2 development
  - Describe various organizational constructs adapted to address situation at hand

C2/Decision Support Activity Hierarchy

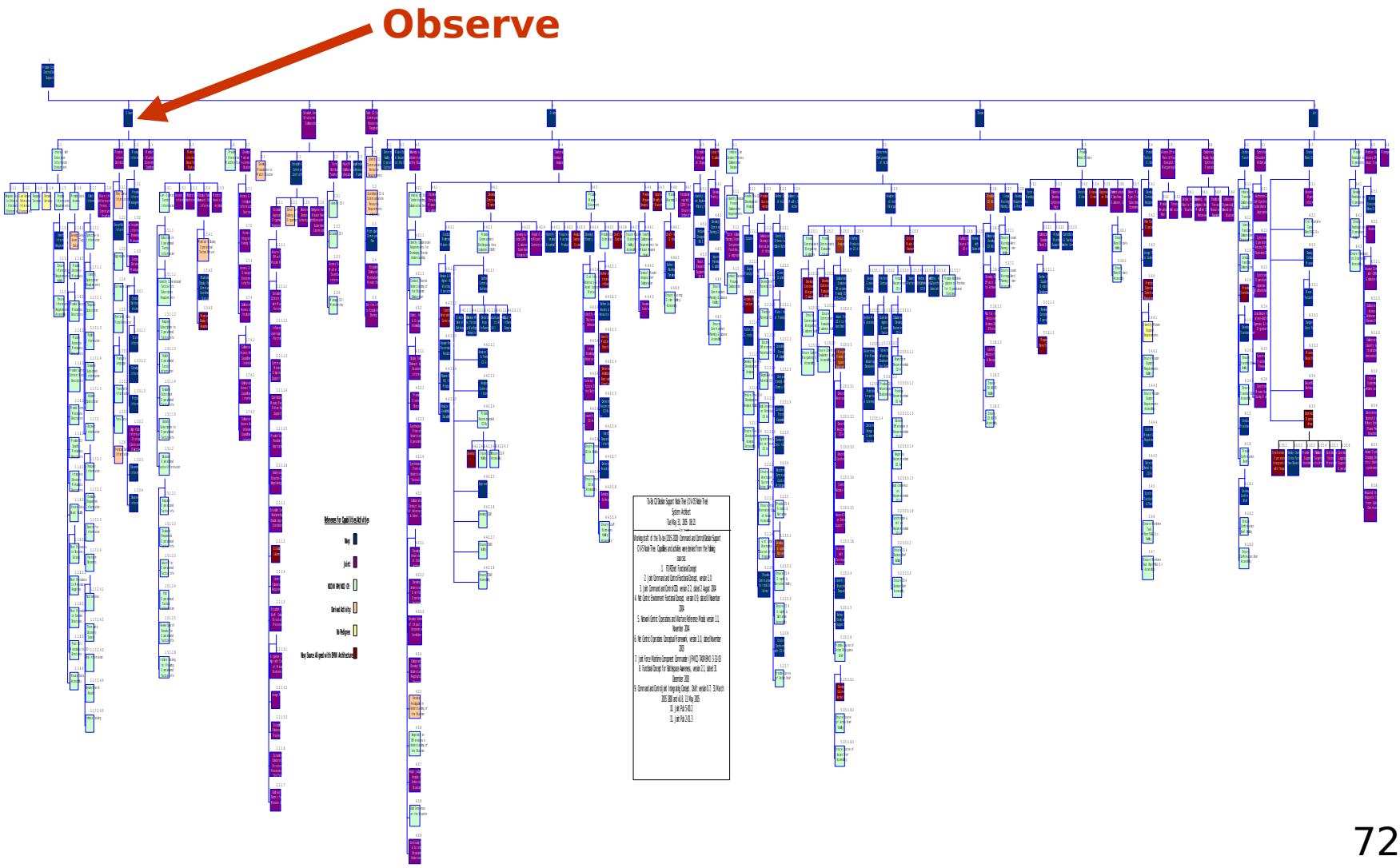


Decomposition Levels for Verification Board Review

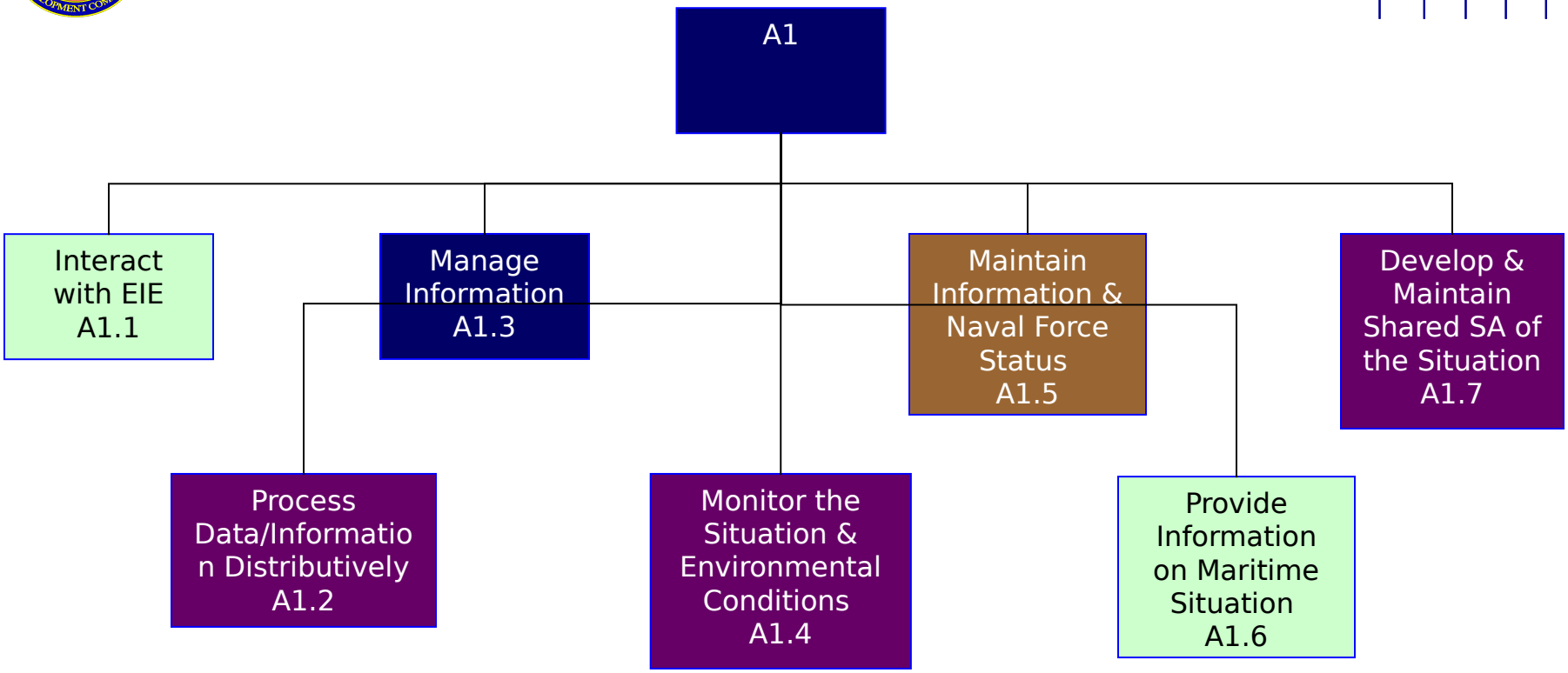
C2/DS Architecture



C2/Decision Support Activity Hierarchy



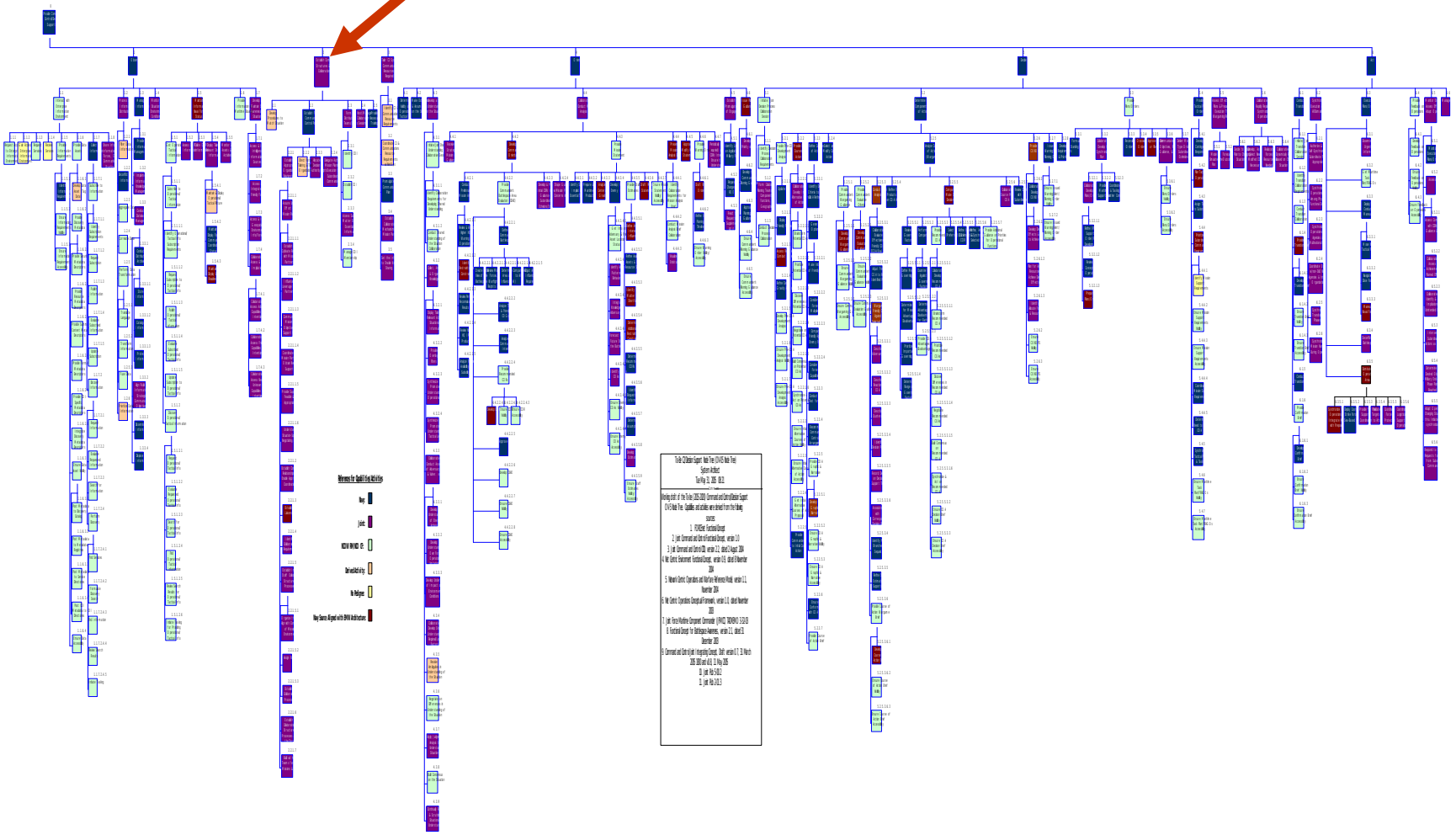
C2/DS A1 “Observe”


A1
Interact with EIE A1.1
Manage Information A1.3
Maintain Information & Naval Force Status A1.5
Develop & Maintain Shared SA of the Situation A1.7
Process Data/Information Distributively A1.2
Monitor the Situation & Environmental Conditions A1.4
Provide Information on Maritime Situation A1.6

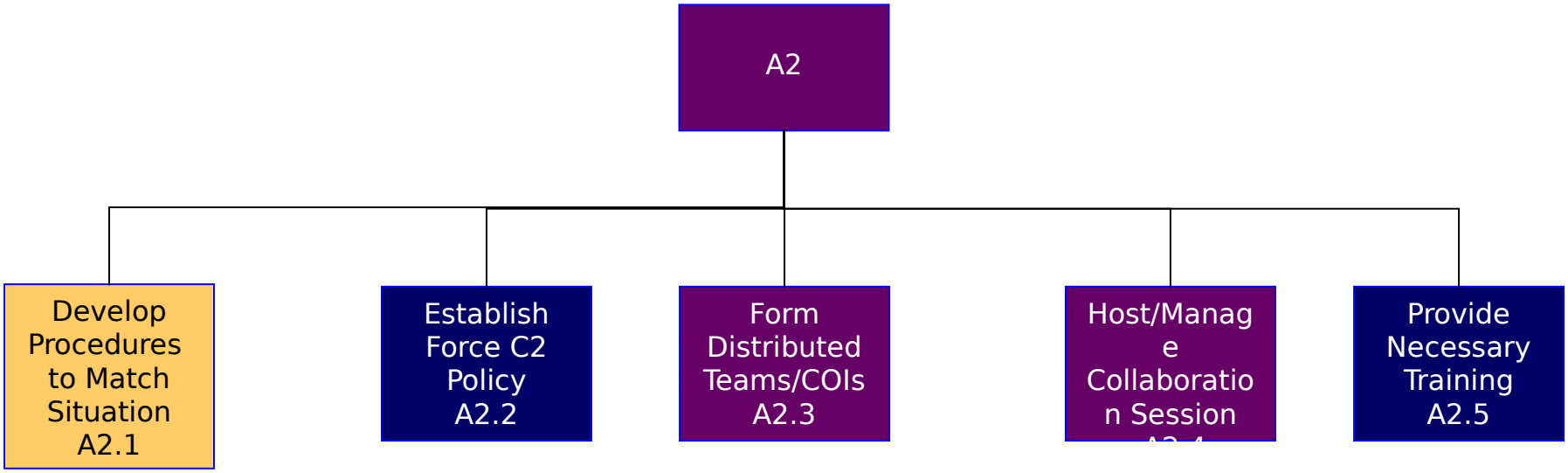
- **Describes activities performed by the “user” to:**
  - **Gain access to EIE/receive services**
  - **Provide information requirements**
  - **Collect/gather data/information**
  - **Manage/Maintain/Display/Share information**
  - **Develop shared awareness of situation**

C2/Decision Support Activity Hierarchy

Establish Command Structures & Enable Collaboration



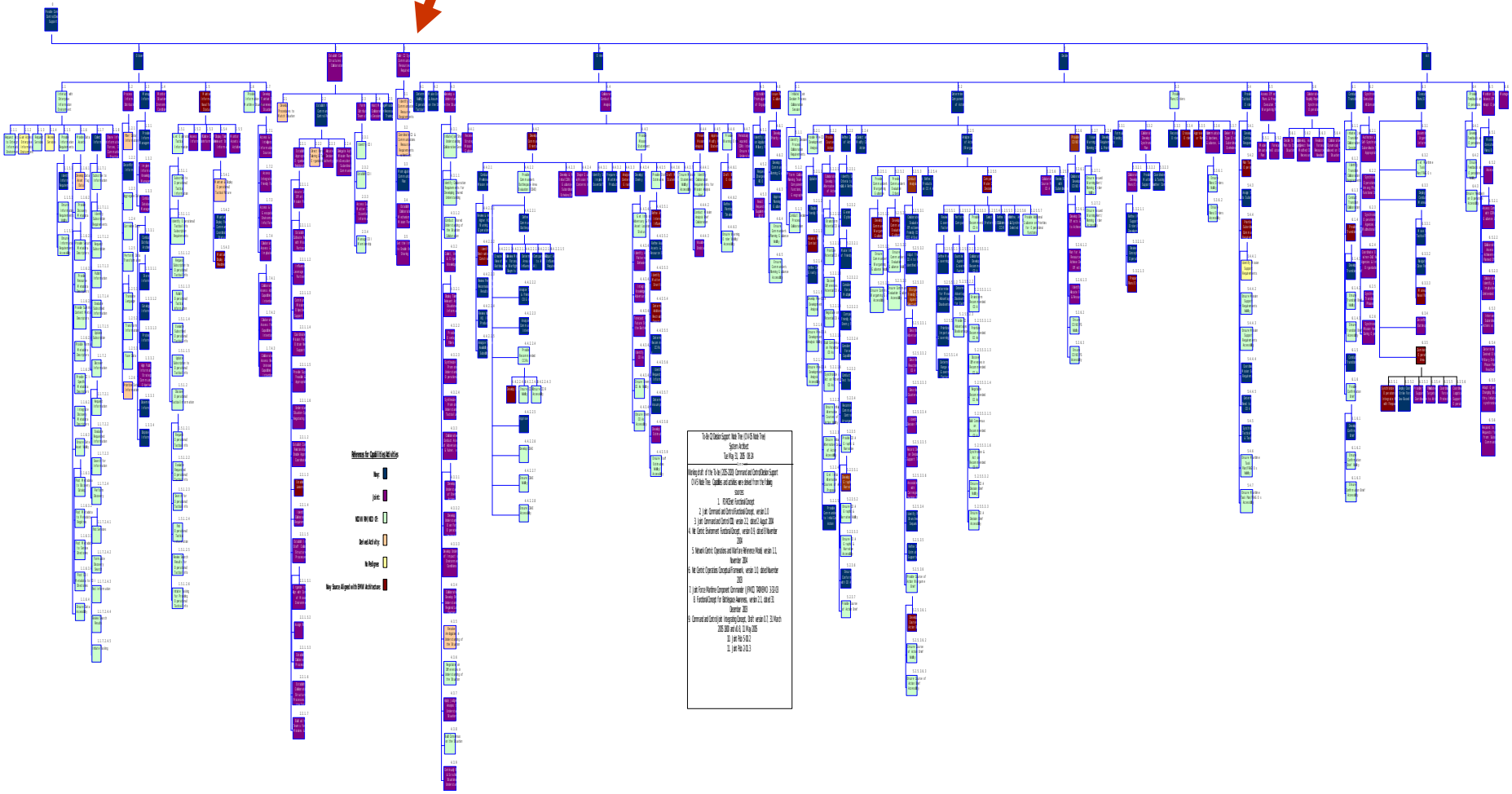
C2/DS A2
"Establish Command Structures & Enable Collaboration"



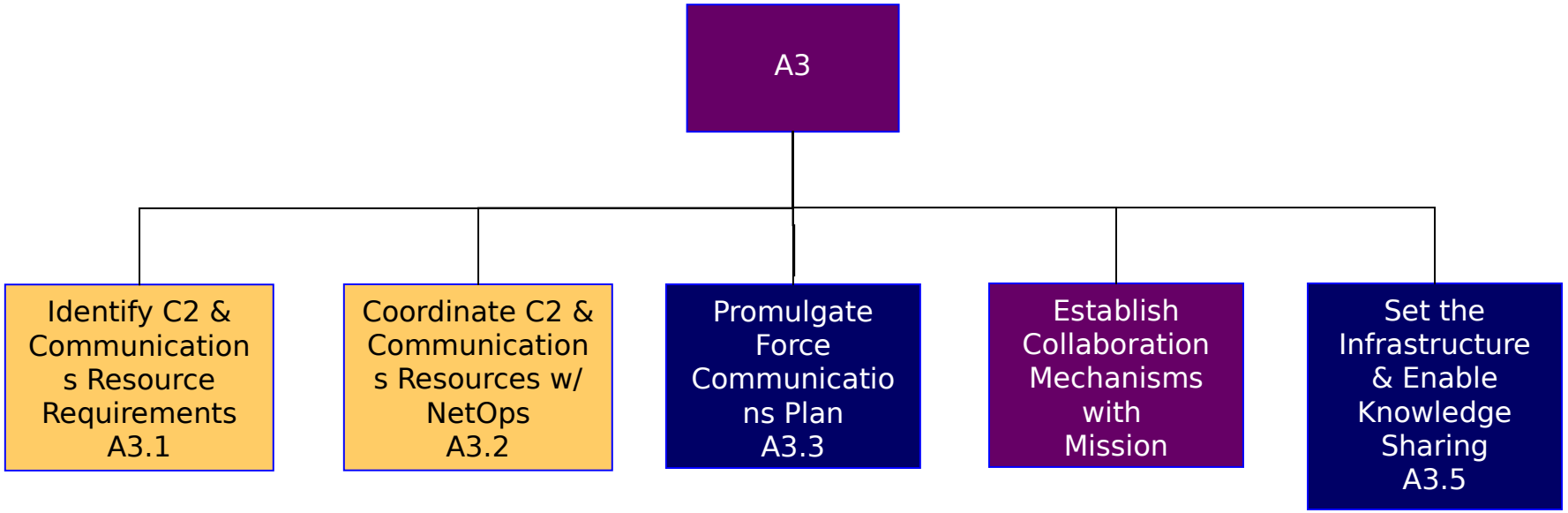
- Based on the development of shared awareness, the CDR adopt appropriate procedures and organizational relationships. Include
  - Mission Partners, liaisons, COIs

C2/Decision Support Activity Hierarchy

Tailor C2 Systems & Comm Resources

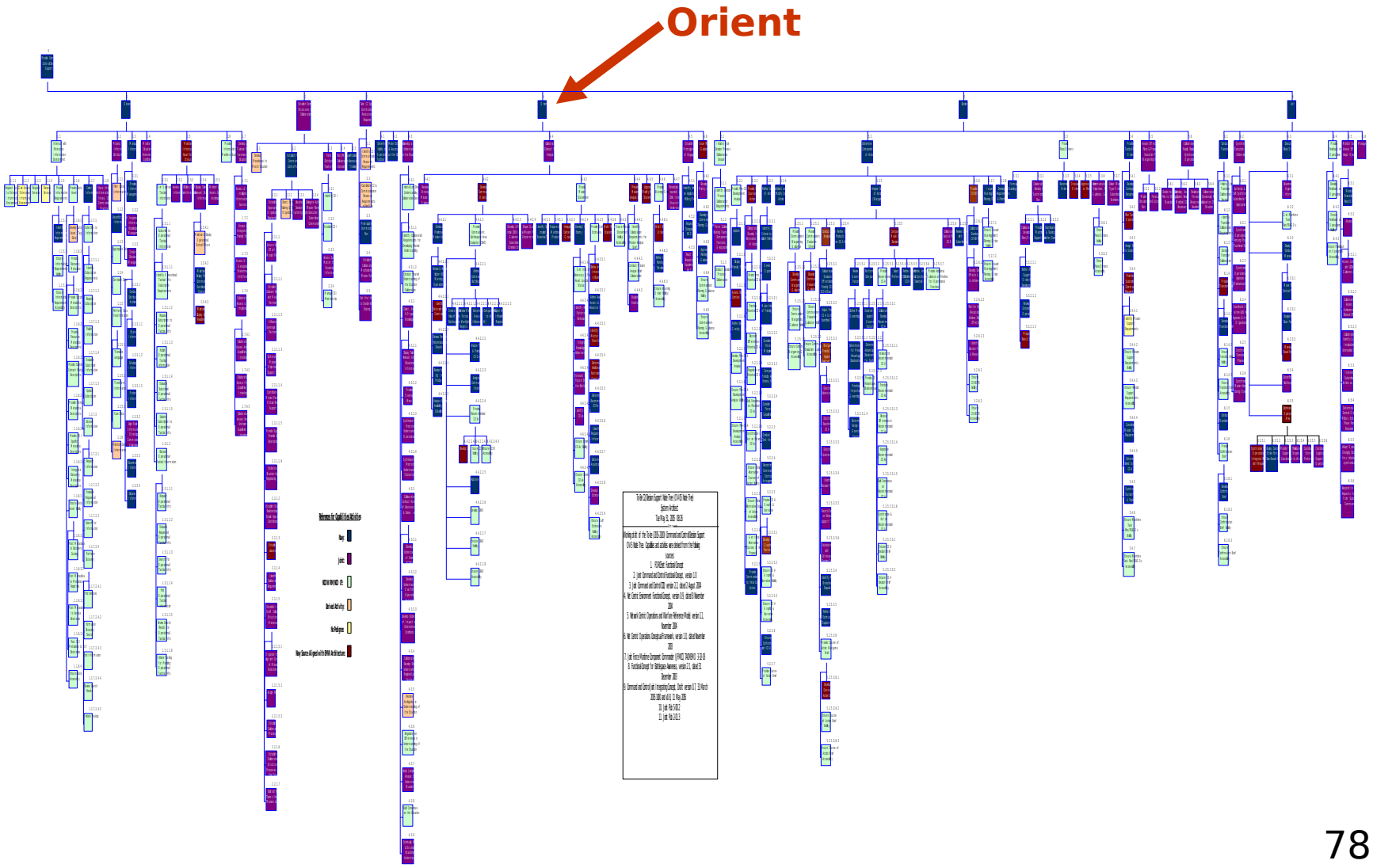


C2/DS A3
"Tailor C2 Systems & Communications Resources as Required"

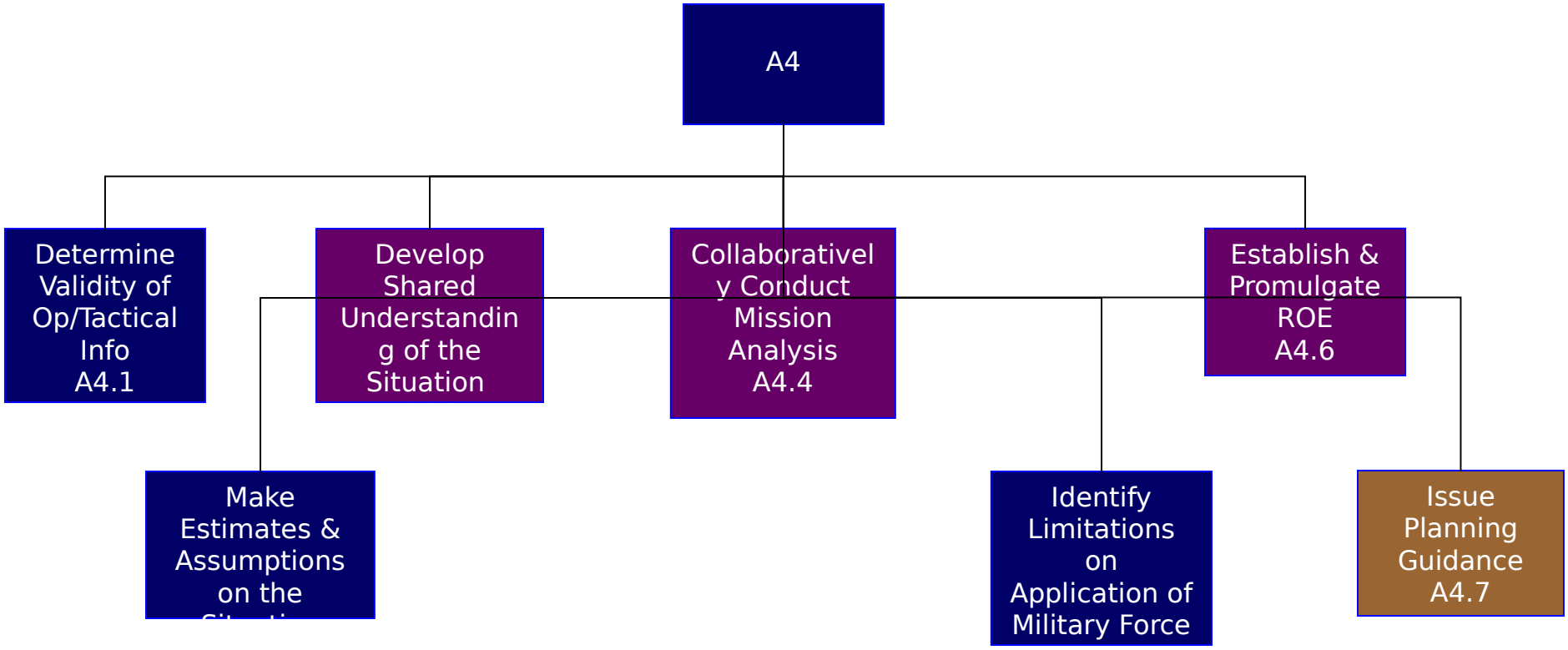

A3
Identify C2 & Communications Resource Requirements A3.1
Coordinate C2 & Communications Resources w/ NetOps A3.2
Promulgate Force Communications Plan A3.3
Establish Collaboration Mechanisms with Mission
Set the Infrastructure & Enable Knowledge Sharing A3.5

ed on established C2 procedures and organizational relationshi
the CDR coordinates requirements for C3 resources with NetOps and other providers

C2/Decision Support Activity Hierarchy

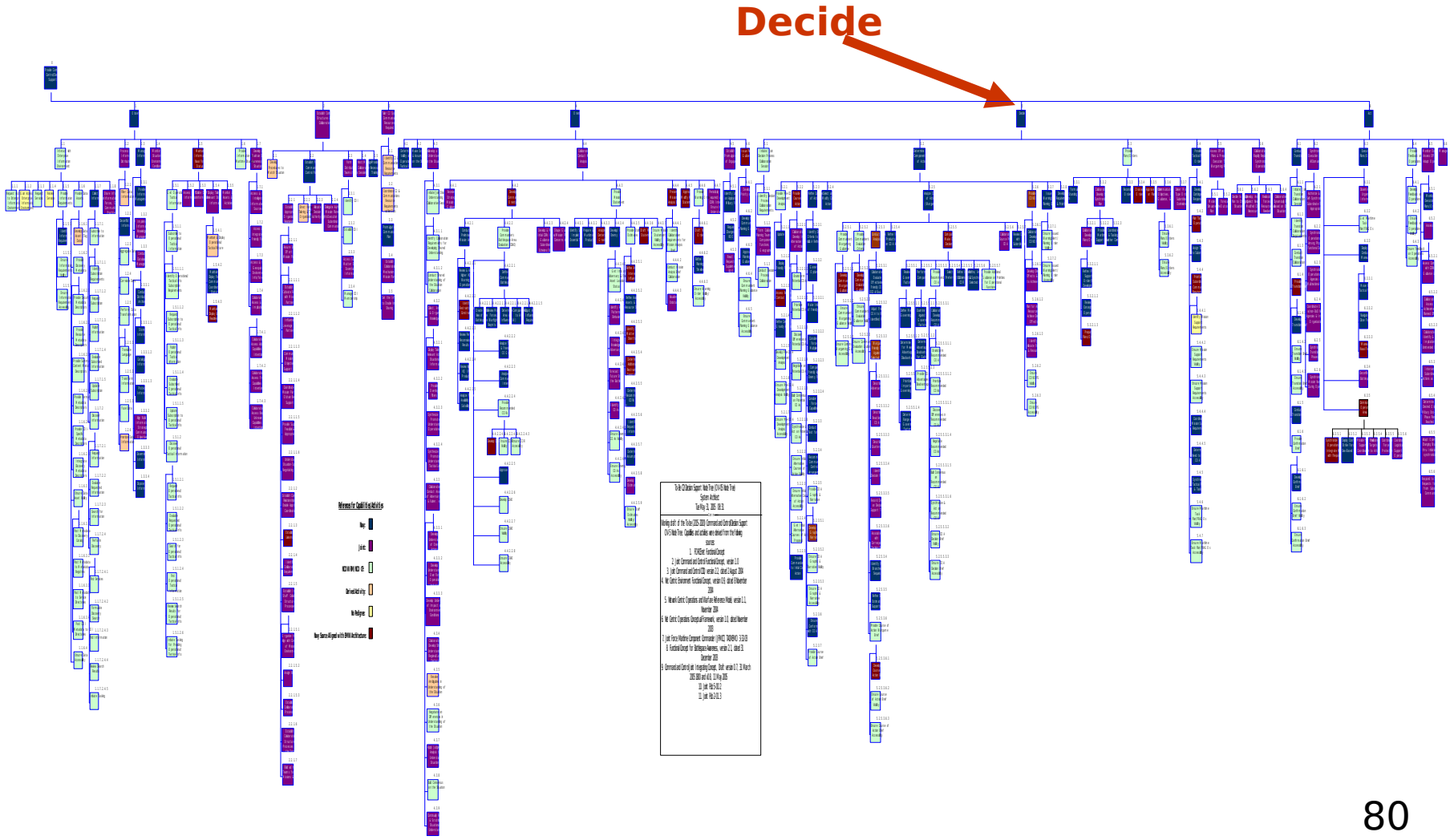


C2/DS A4 “Orient”

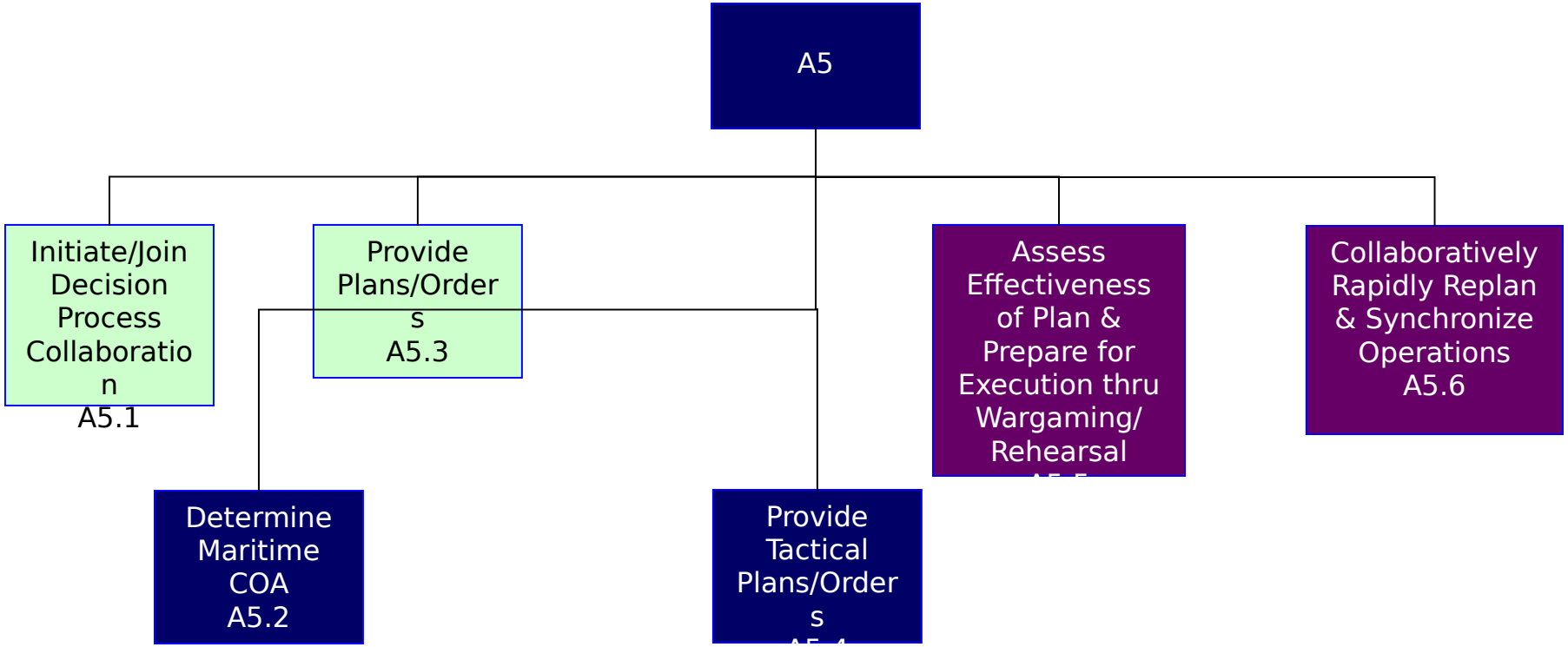

A4
Determine Validity of Op/Tactical Info A4.1
Develop Shared Understandin g of the Situation
Collaborativel y Conduct Mission Analysis A4.4
Establish & Promulgate ROE A4.6
Make Estimates & Assumptions on the
Identify Limitations on Application of Military Force
Issue Planning Guidance A4.7

Based on the situational awareness developed in “observe”, the CDR/Staff apply their experience/judgment in a llaborative environment to build a shared understanding of situation ar establish initial planning guidance for COA development.

C2/Decision Support Activity Hierarchy

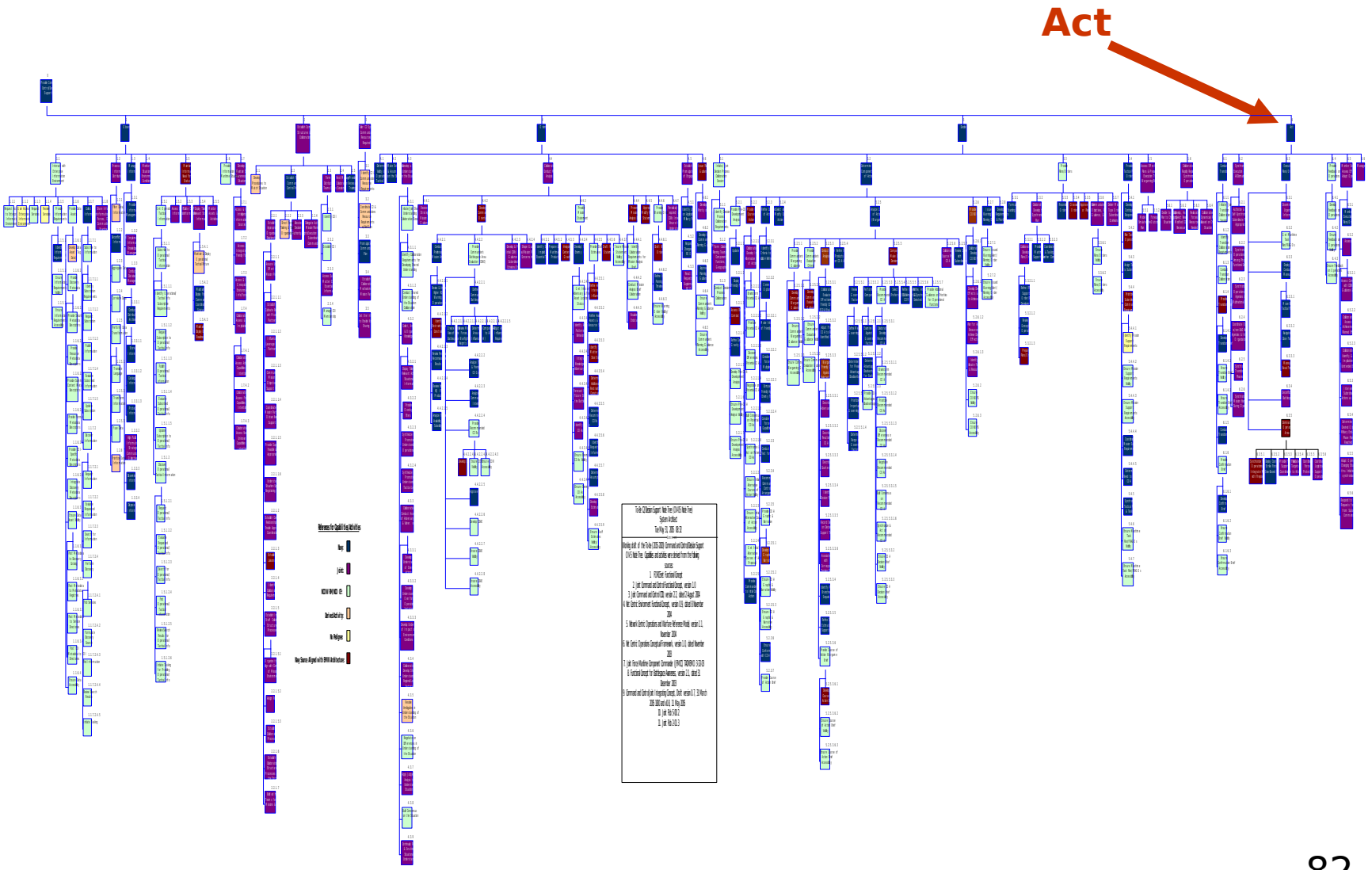


C2/DS A5 “Decide”

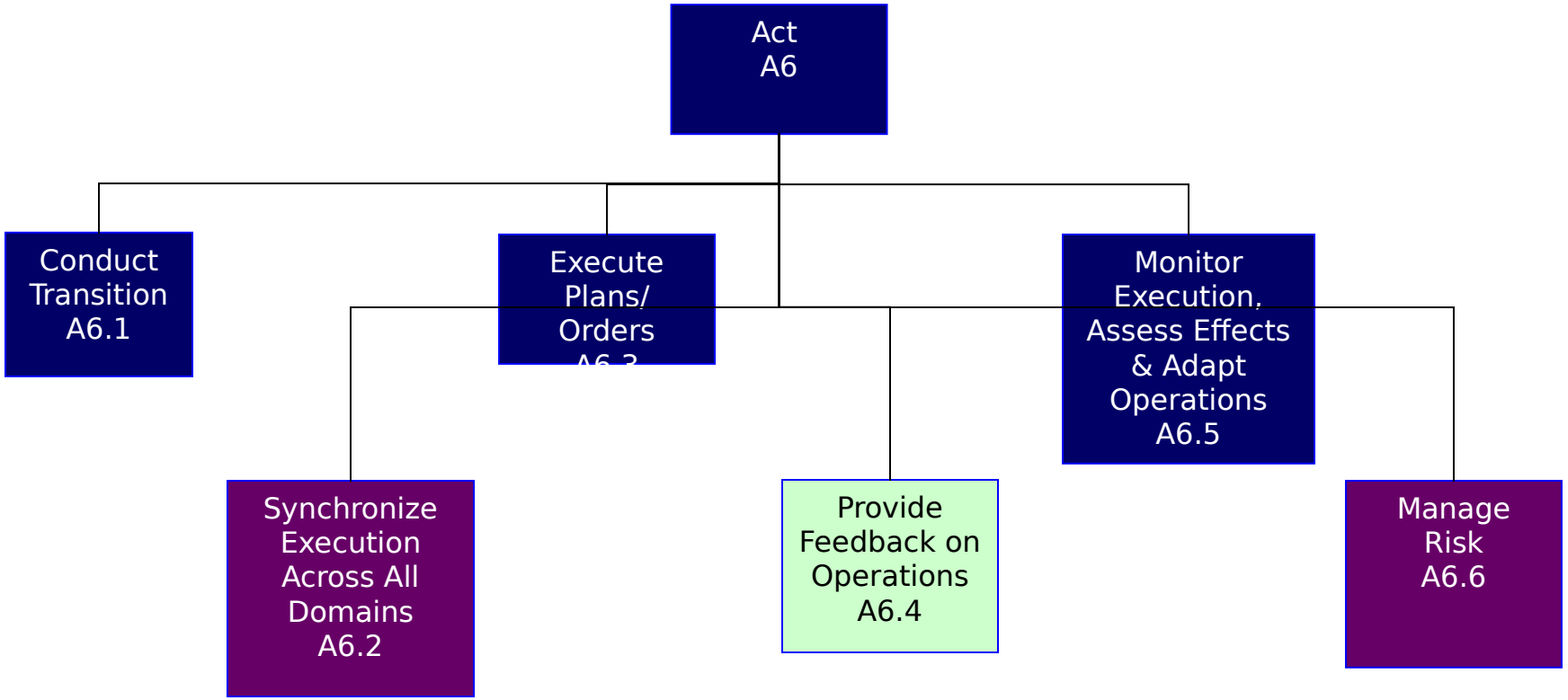

A5
Initiate/Join Decision Process Collaboration A5.1
Provide Plans/Orders A5.3
Assess Effectiveness of Plan & Prepare for Execution thru Wargaming/ Rehearsal
Collaboratively Rapidly Replan & Synchronize Operations A5.6
Determine Maritime COA A5.2
Provide Tactical Plans/Orders

- **Describes activities associated with deciding on a COA, developing operational/tactical plans based on approved COA, & determining estimates as to their ability to achieve desired e**
- **Incorporates post-action decision loop activities**

C2/Decision Support Activity Hierarchy



C2/DS A6 “Act”



Describes high level activities associated with executing plans & orders

C2/DS OV-5 Activity Hierarchy Diagram Way Ahead

- Update Activity Hierarchy diagram with SME concurrence based on:
  - C2/DS OV-5 Activity Model (Under Development)
  - OV-6 Mission Thread (Under Development)
  - Updated concept papers

C2/DS Architecture Recommendation

- Approve briefed diagrams as version 1.0, and place under configuration management:
  - Top level OV-2 and OV-4 diagrams
  - OV-5 Activity Hierarchy Diagram decompositions

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